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THE REAL-TIME IP NETWORK STARTS HERE.

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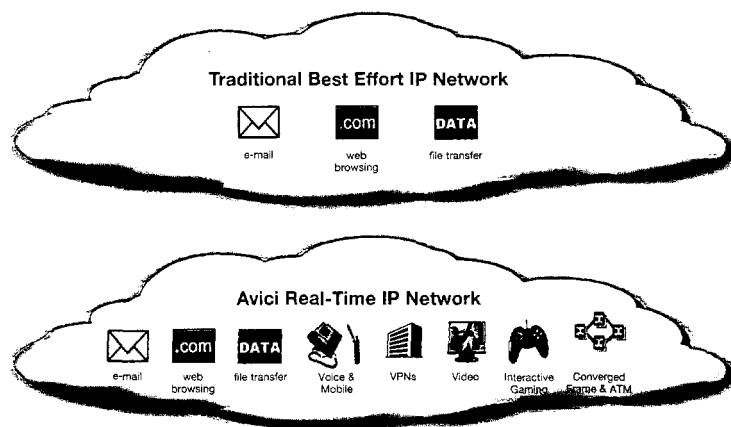
# THERE'S NO LIMIT

TO WHERE YOUR IP NETWORK CAN GO WITH AVICI SYSTEMS' NEW GENERATION OF HIGH-PERFORMANCE ROUTING PLATFORMS.

Carriers today are facing unprecedented challenges: accelerating broadband growth, escalating service quality requirements, and financial pressure to converge networks. To manage these challenges, carriers are demanding more from their IP networks: zero downtime, high return on investment, in-service upgrades, and modular scalability.

Avici Systems builds routing solutions for the Real-Time IP Network – a network designed for the most demanding applications, delivering the highest reliability, and achieving new levels of profitability.

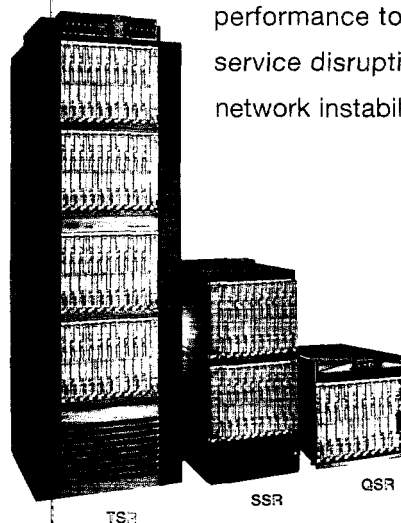
## THE REAL-TIME NETWORK *A New Model for IP Profitability*



The first wave of IP growth came from best-effort applications such as web browsing and e-mail, which required only basic connectivity. Today, a second wave is being driven by broadband growth, the demands of new real-time applications and the convergence of legacy services to IP. Avici Systems is leading the way to a new era of profitable IP growth, with routing platforms purpose-built for the demands of the Real-Time IP Network.

## REAL-TIME NETWORK INNOVATIONS

- Avici's robust IPriori™ system software sets a new standard for network stability and protocol scalability
- Avici's Velociti™ switch fabric provides modular scalability, eliminating the need for costly interconnections and disruptive forklift upgrades
- Avici's unique Composite Links™ technology lets carriers seamlessly expand capacity and provides cost-effective link protection
- Avici's revolutionary NSR™ technology protects against router failure, delivering 99.999% system availability and in-service software upgrades
- Avici's MSC™ line card platform provides a high-performance packet-cell solution that delivers ATM-like QoS and ASAP multi-service flexibility
- Avici's RAPID™ technology delivers industry-leading protocol convergence performance to minimize service disruptions and network instability



# TO OUR SHAREHOLDERS

After several years of restructuring and reduced capital spending by carriers, we believe the market for carrier equipment began to stabilize in 2003. During this period, we saw growth of 19% in our gross revenues as sales increased to \$39.4 million from the \$33.1 million reported in 2002, and as we positioned the Company to meet the evolving needs of carriers. Let me review some of the key market trends and Company milestones over the past year.

## MARKET RECOVERY

In 2003, carriers began to resume spending, as they allocated an increasing share of their capital budgets for Internet Protocol, or IP, equipment to help improve their return on investment and bottom line performance. On the top line, IP services continued to be a fast growing source of revenue for carriers, driven by new business applications such as VoIP, VPNs, and consumer applications such as music downloads and gaming. This growth has also been accelerated by rapid adoption of high-speed broadband access technologies, such as cable, DSL, and wireless. To help their bottom line, carriers seek to reduce costs by converging many different networks onto a single IP core backbone. This enables them to reduce the significant capital and operational expenses associated with managing multiple networks. Given these financial benefits, carrier spending on the core routing market is forecast by Dell'Oro Group to grow 50% from \$1.7 billion in 2003 to \$2.5 billion in 2006.

To increase our share of this expanding market, Avici focused on a strategy to broaden our sales channels and strengthen our leading product capabilities. To expand beyond our historic base of direct sales in the United States, we established major new strategic channel partnerships with Nortel Networks and Huawei Technologies as well as other regional partnerships. In addition, we further strengthened the reliability, scalability, and cost saving benefits of our routing platforms to best meet evolving carrier needs.



## STRATEGIC ALLIANCES

### *Huawei Technologies*

In June of 2003, Avici announced a strategic partnership with Huawei Technologies to market and sell Avici products into the China market. China is one of the fastest growing markets in the world for telecom equipment, and it is the second largest country in the world in terms of Internet users with over 53 million at the end of last year. As the largest private telecommunications company in China, Huawei Technologies is an excellent partner for Avici. Huawei Technologies brings a deep understanding of the local customer needs, strong service capabilities, broad carrier relationships, and a diversified product portfolio. Huawei Technologies selected Avici as a partner because they recognized our technology leadership in scalable, high-performance, and high-reliability routing platforms. The Avici family of products is an excellent complement to the wide range of telecommunications products already offered by Huawei Technologies for the voice, wireless, data and optical market segments.

### *Nortel Networks*

In January 2004, Avici signed a 3-year strategic agreement with Nortel Networks and became their worldwide preferred partner for IP core routers. Through this strategic relationship, Nortel Networks will integrate, sell, and support Avici's routers as part of Nortel Networks' converged network

solutions. The Nortel relationship is global in scope, and will enable Avici to leverage Nortel Networks' relationships and sales and service capabilities with carriers worldwide in over 150 different countries. Nortel Networks and Avici are focused on delivering integrated solutions specifically tailored to seamlessly transition carriers to a converged IP network. These solutions will leverage Nortel Networks' leading market position in areas such as voice-over-IP, wireless, optical, and multi-service and Avici's leadership in reliable and scalable core routing. Avici is also working with Nortel Networks to integrate our products under Nortel Networks' network management systems, which should streamline operations, administration maintenance, and provisioning support, enabling a seamless end-to-end solution for carriers.

#### PRODUCT LEADERSHIP

Avici continues to lead the market with breakthrough routing technologies to support carriers in their transition from multiple legacy networks to single cost-effective IP core networks. We have the industry's most reliable IP platform and are the only router vendor shipping non-stop routing technology that guarantees 99.999% reliability, which is critical to support the service levels expected for large numbers of voice-over-IP calls. In addition to outstanding reliability, Avici introduced its RAPID™ technology which speeds network convergence times up to ten times faster than competitive products. Those performance improvements can make the difference between keeping thousands of broadband customers connected – or dropping them suddenly from the network – when incidents like fiber cuts occur. To further support the carrier transition to multiservice IP networks, Avici has introduced the industry's most advanced multiservice line cards. Our award winning Multiservice connect technology is the most flexible and cost-effective platform to help carriers manage their network transition, offering three to six times the port density of competitive products. In sum, Avici is providing unique, industry-leading products that enable carriers to cost-effectively converge their networks today.

#### FISCAL DISCIPLINE

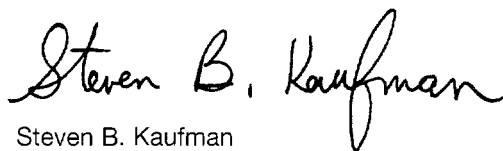
Over the year, Avici has successfully managed expenses and improved our cash flow and bottom line towards our goal of achieving positive cash flow and profitability. We reduced operating expenses 21% year over year and increased our gross margins, enabling us to improve our bottom line performance by 43% compared to 2002. We also reduced our cash usage to \$29 million for the year and improved on key cash usage metrics such as inventory turnover. We finished 2003 with a strong balance sheet including \$96 million in cash and marketable securities and virtually no debt. We continue to invest our resources prudently, where we can maximize our revenue growth opportunities.

#### LOOKING AHEAD

We are excited about the opportunities for Avici in 2004 given the synergy of renewed market growth, strong new sales channel partnerships, and an industry leading product line well matched to more demanding market needs. As the market recovery continues and our channel relationships ramp, we see an opportunity to further expand our revenue growth and market share gains in the second half of 2004 and beyond.

I would like to thank our shareholders, employees, customers, and other business partners for their continued commitment to us. I look forward to reporting on Avici's progress throughout the coming year.

Sincerely,



Steven B. Kaufman  
President and Chief Executive Officer

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**Form 10-K**

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended: December 31, 2003

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

Commission File Number: 000-30865

**AVICI SYSTEMS INC.**

(Exact Name of registrant as specified in its charter)

**DELAWARE**  
(State or other jurisdiction of  
incorporation or organization)

**02-0493372**  
(I.R.S. Employer  
Identification Number)

101 Billerica Avenue  
North Billerica, Massachusetts 01862  
(Address of principal executive offices)

Registrant's telephone number, including area code: (978) 964-2000

Securities registered pursuant to Section 12(b) of the Act: None

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, \$.0001 Par Value

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2). Yes ☐ No ☒

The aggregate market value of the voting stock held by non-affiliates of the Registrant, as of June 30, 2003 was approximately \$71,706,421 (based on the closing price of the Registrant's Common Stock on June 30, 2003 of \$6.10 per share).

The number of shares outstanding of the Registrant's \$.0001 par value Common Stock as of March 5, 2004 was 12,518,900.

**DOCUMENT INCORPORATED BY REFERENCE**

The registrant intends to file a definitive proxy statement pursuant to Regulation 14A within 120 days of the end of the fiscal year ended December 31, 2003. Portions of such proxy statement are incorporated by reference into Part II, Item 5, and Part III of this Form 10-K.

AVICI SYSTEMS INC.

ANNUAL REPORT ON FORM 10-K  
YEAR ENDED DECEMBER 31, 2003

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## PART I

### ITEM 1. BUSINESS

#### Overview

Avici Systems Inc. provides high-speed core Internet infrastructure equipment that enables telecommunications companies and Internet service providers, referred to as carriers, to transmit large volumes of data across their networks. Our high-performance routing solutions are designed and built to deliver the scalability, reliability, and performance that carriers need to support a wide range of applications while lowering the total cost of building and operating their core data networks.

The Avici core routing product family consists of a variety of chassis and line cards to provide carriers with flexibility in selecting a product that best fits their needs. We offer customers three different equipment configurations, the Terabit Switch Router (TSR™), the Stackable Switch Router (SSR™), and the Quarter-rack Scalable Router (QSR™), and each chassis is configured with our line cards and proprietary software to support a range of speeds, protocols, and carrier services. Our core routers are designed to provide our customers:

- Carrier-class reliability to support mission critical and new real-time services on Internet Protocol (IP) networks. Avici routers have achieved 99.999+% system availability in operational networks;
- In-service modular scalability to enable non-disruptive incremental capacity additions to the network. Avici routers expand linearly from the smallest to largest configurations without costly upgrades or network redesigns, thereby extending the longevity of the network and reducing capital and operational costs;
- Stability and interoperability required to transform today's complex multi-tiered networks to a cost-effective converged IP network; and
- High performance across very large IP-based core networks. Avici routers provide Quality of Service (QoS) to support carrier Service Level Agreements (SLAs) with their customers for mission critical telecommunication services across an IP core network.

We utilize a direct sales force to sell and market our products to many of the large incumbent local exchange carriers, inter-exchange carriers, and postal telephone and telegraph operators globally, such as our existing customer, AT&T. We also market, sell, and support our products through systems integrators, sales agents, and distribution partners, including Nortel Networks and Huawei Technologies. In January 2004, we entered into a worldwide strategic relationship with Nortel Networks to market, sell, and support our products. In May 2003, we entered into a strategic relationship with Huawei Technologies for sales and support of our product in Greater China. We also have additional regional channel partners in Europe, Japan, Asia, and Latin America.

Avici was incorporated in Delaware in 1996 and held its initial public offering in July 2000. We are headquartered in North Billerica, Massachusetts. At December 31, 2003, we had 201 employees.

#### Industry Background

Traditional carrier networks were primarily built on technologies to support voice services. These legacy voice networks used circuit switches, which dedicate an individual connection, or part of the network, for the duration of a call even while there are pauses in the conversation. As the amount of data traffic carried over the network infrastructure increased, carriers sought to increase the efficiency of data transmission through their networks by adopting packet switching technologies, such as Asynchronous Transfer Mode (ATM) and Frame Relay. Packet switching technologies enabled carriers to send data from multiple sources on the same connection, substantially reducing the network bandwidth wasted using traditional circuit switch technology.

In the 1990s, the Internet created a new era of innovation and growth in the telecom industry. In an effort to build out and rapidly expand their data networks to support increased traffic, carriers invested in IP routers, and IP emerged as the leading protocol for supporting residential, enterprise, and carrier networks. IP's growth was largely driven by email, web, and basic data transfer applications, which permit intermittent and delayed transmissions of data.

Carrier IP networks are now expected to support mission critical services such as voice, Virtual Private Networks (VPNs), online gaming, storage, and other business and residential applications. These types of IP services are required for carriers to increase revenue and profits. However, these applications require significantly higher levels of reliability, scale, QoS, and performance. IP has a relatively poor record of reliability and performance, compared with voice and ATM networks. This is because traditional routers that supported the initial build out of the Internet had an enterprise heritage—they only needed to support basic connectivity and not the demands of SLA-compliant services. Furthermore, as IP traffic increased, the capacity constraints of these traditional routers forced carriers to cluster multiple routers that use valuable interfaces to connect to each other or perform forklift upgrades to new higher capacity chassis. Some carriers have also had to add a separate aggregation layer between the edge and the core of their networks to combine multiple lower-speed connections from edge routers onto a smaller number of higher-capacity connections. Carriers were required to deploy duplicate or redundant routers in every Point of Presence (PoP) to improve reliability to acceptable levels. These measures raised carriers' capital expenditures and added operational complexity to the network, requiring more personnel and expenditures to adequately maintain the network. Today, a maturing Internet is placing new demands on routers.

Over the past several years, we believe that carriers have experienced a near doubling of IP traffic each year. As IP is increasingly used to support more diverse and demanding applications, carriers require routing platforms purpose built for the carrier network. Carriers recognize that they cannot cost effectively support multiple networks—one for landline voice, another for IP traffic, another for wireless, and many more for separate data networks such as ATM. Carriers envision a converged IP network where voice, data, video and wireless services are supported over a single reliable and cost effective network. This vision requires upgrading existing best effort IP networks to a new-real time IP network powered by carrier-grade IP routers to improve the economics of the IP network.

### **Carrier Requirements for a New IP Network**

The core routers that run carrier networks must evolve and support a new model of system availability where they match the standard reliability of legacy telephony and data networks, scale in service to extend network longevity, keep pace with new traffic requirements, and deliver the levels of service and performance to converge legacy networks over a common IP and Multi Protocol Label Switching (MPLS) core. As a result, carriers are demanding solutions with the following attributes:

*Carrier-Class Reliability.* The equipment that carriers deploy within their networks must offer the highest level of up time and redundancy. To meet this requirement, known as carrier-class reliability, router designs must minimize any single point of failure and provide automatic recovery from network disruptions and device errors. Carriers require the ability to recover from service or network disruptions in the sub-second level and 99.999+% total system availability in core IP routers.

*Reduced Network Cost and Complexity.* A significant portion of line card expenditures relating to the deployment of traditional routers is dedicated to the interconnection of multiple, fixed configuration routers in order to provide for the required amounts of capacity. To reduce costs, carriers require that every line card be dedicated to revenue generating customer traffic and not the interconnection of routers to each other. Furthermore, the more routers involved, the greater the ongoing operational costs of running a network. With each addition of a new router, the complexity of the network's design and management increases, as well as the number of personnel needed to manage the network. As a result, carriers are demanding modular solutions that scale in service to accommodate new capacity requirements, reduce the number of devices and, consequently, the forecasting uncertainty, complexity, and costs of operating large capacity networks.



*Faster Service Provisioning.* Networks and service demands are changing constantly, and carriers require a cost-effective means of increasing capacity and offering new services on a continual basis. Routers must have the ability to expand capacity in-service without the costly delays caused by forklift upgrades, complex network reconfigurations, or other significant disruptions to the network.

*High Performance.* As carriers consolidate existing legacy services and deliver new services on the IP backbone, they must provide Quality of Service, or the ability to prioritize different traffic types in order to meet service level agreements to customers for premium services.

*Interoperability.* Due to economic constraints associated with upgrading an entire network to accommodate new technologies, it is critical that new network equipment support the protocols and devices already deployed in carrier networks.

Instead of utilizing interim solutions that provide only incremental increases in capacity, carriers are seeking longer-term solutions that will enable them to cost-effectively build networks designed to capitalize on the opportunities created by the growth of the Internet and the proliferation of data traffic.

## **The Avici Solution**

### ***Products and Technology***

Our high-performance core routing family is engineered to provide a long-term solution for carrier networks addressing a wide range of network applications across a core IP network. Avici routers were designed to deliver new levels of scalability, reliability, and performance to IP networks using carrier-proven principles of redundancy, in-service upgrade ability, multi-generational investment protection, and quality assurance.

Avici has developed a modular network architecture that eliminates many of the constraints of traditional routers. Our core routing platforms support current and future traffic requirements by scaling, in-service, from gigabits to terabits of capacity through the non-disruptive addition of line cards and chassis. Unlike traditional routers, every port can be used to support customer traffic; no ports or external switching hubs are needed for interconnection or scaling. Our routing platforms provide carriers with the ability to transform complex and costly multi-tiered networks into a simplified and more stable, scalable, and reliable foundation to support traffic growth and lower cost requirements. Our routers can also perform both the core and aggregation/hub functions in a single platform, thereby eliminating the need for a separate aggregation layer. Our routing technologies provide internal hardware and software redundancy to deliver carrier-grade 99.999+% system availability to support SLAs on services such as VPNs and Voice over IP (VoIP). Because Avici products can deliver high levels of reliability, carriers are able to remove duplicate routers and simplify their PoPs. Avici routers also enable the IP network to recover quickly from service disruptions, a requirement for supporting real time services.

Our products provide these benefits through our proprietary technologies, including our application specific integrated circuits, or ASICs, Velociti™ switch fabric and distributed system design, IPriori™ system software, Composite Links™, Non Stop Routing (NSR™), and Reliable Alternate Paths for Internet Destinations (RAPID™) technologies. We incorporate all of these proprietary technologies into each of our three available product form factors – the Terabit Switch Router (TSR), Stackable Switch Router (SSR), and Quarter-rack Scalable Router (QSR). The TSR, SSR, and QSR offer customers different combinations of speed capacities and numbers of available ports in order to allow them to tailor their network infrastructure to meet their traffic needs. We believe our core routing products establish a new model for carriers to build reliable and cost effective IP networks.

### ***ASIC-based Packet Routing Technology***

We have consolidated all data-flow and control processes, including packet input and output framing, forwarding, scheduling, and switching into our application specific integrated circuits, or ASICs. We utilize a distributed routing architecture. Each line card has its own ASICs, and, accordingly, the addition of each line

card increases the overall capacity of our product. Our ASIC design and distributed switch fabric provide high levels of performance by enabling line rate packet forwarding performance regardless of packet address and route table size. We also work with leading component manufacturers in the areas of field programmable gate arrays (FPGAs), network processors, and framers. We have established a strategic relationship with Intel for the supply of network processors for use in our Multiservice Connect (MSC) family of line cards, which provide any service, any port (ASAP™) flexibility to configure through software a range of services, such as ATM and packet over sonnet (POS), and interface speeds, thereby enabling carriers to support current and future service types over a cost effective platform.

### ***Velociti Switch Fabric***

Our Velociti switch fabric is the mechanism that transfers data from an input line card to specific output cards in our products. This direct communication provides high-speed data transfer and, as additional capacity is needed, enables cost-effective addition of line cards. Because all data handling, switching, and packet processing has been incorporated into the line cards, carriers are able to support higher speed line cards without forklift upgrades. The Velociti switch fabric also gives our products a high level of reliability by creating multiple connections between pairs of input and output line cards. In the event one path fails, one of the backup paths is selected to continue data transmission, thereby substantially reducing the risk of disruption to the network.

### ***IPriori Carrier System Control Software***

Avici's IPriori system software has been developed to optimize and control switching and routing in all of our products. IPriori is built on a distributed model, which uses multiple processor units to provide increased levels of reliability and scalability, and is specifically designed to address the system requirements arising from scaling to a large number of ports. Through our network deployments and extensive field-testing, we have successfully demonstrated the interoperability of our products with standard protocols such as BGP, OSPF, IS-IS, and MPLS. Each software release is exhaustively tested under extreme traffic loads and multi-protocol stresses for optimal stability, interoperability, and performance in operational carrier networks.

### ***Composite Links for Seamless Capacity Additions and Cost-Effective Link Protection***

Avici's proprietary Composite Links technology enables carriers to seamlessly expand capacity in the PoP by enabling multiple physical links or fiber interfaces between two Avici routers to be grouped into a single logical connection. This technology provides greater flexibility to carriers in migrating to higher-speed backbones that leverage multiple generations of fiber infrastructure and speeds. The interfaces used in Composite Links can support up to a 4:1 speed ratio. For example, this would allow OC-48c members to be combined with OC-192c members. A virtual 40-gigabit or higher connection can be supported today by combining lower speed interfaces into a single logical connection. Hardware upgrades can be done without costly downtime by adding or removing router modules without disruption to packet ordering, routing tables or traffic flows. Composite Links also provide carriers with cost-effective link protection through the ability to recover from failures on individual member-link interfaces. If a physical-layer failure occurs in the network that affects one or more of the member-link interfaces, all traffic is redistributed to the remaining member-links in less than 45 milliseconds—minimizing traffic loss and avoiding disruption at the IP layer.

### ***Non-Stop Routing (NSR) Technology***

Our products have been designed and manufactured to be highly reliable in the core of carrier networks. Avici's NSR technology provides nodal reliability by protecting against failure of the route controller (brain of the router), enabling carriers to achieve 99.999+% system availability in a single router. This functionality is achieved by having a second route controller that takes over routing functions in the event the primary fails. In the event of a failure of the primary route controller, NSR technology will enable the primary controller to switch over to an active backup route controller without disrupting the routing protocol interactions with other routers,

without resetting line cards, and without disrupting service. NSR also provides carriers the ability to perform an in-service upgrade to a newer version of IPriori software without taking the router down and without disrupting service to customers. Many of today's IP networks also use two core routers within a PoP to increase reliability. Avici NSR can provide potential cost savings by enabling carriers to end the costly practice of duplicating routers to increase router reliability.

### ***Reliable Alternate Paths For Internet Destinations (RAPID) Technology***

Traditional IP networks have relied on the ability of routers to route around failed links when there is a failure. However, taking multiple seconds to recover when a link fails is not acceptable since data and service connections can be lost during that period. In order to support a multi-service network, routers need to quickly route traffic around network disruptions. Avici's RAPID technology significantly improves recovery times, providing carriers the ability to achieve higher levels of network reliability.

Avici's RAPID technology uses advanced software and routing algorithms to dramatically improve the recovery speed after a network disruption by pre-configuring alternate routing paths in the network. RAPID provides link protection internal to the system and does not require the complex manual configuration of setting up alternate paths associated with other protection methods.

All Avici routers provide support for other protection mechanisms such as MPLS Fast Reroute, APS, and 802.3ad link aggregation.

### **Strategy**

Our goal is to design, develop, and deliver carrier-class core routing solutions that provide the foundation for IP networks as they mature and enter a new phase of growth. Avici routers can help carriers redefine the economics of IP networks, delivering the reliability to support new real-time services, the in-service scalability to adapt to new traffic requirements and extend the longevity of the network, and the ability to converge networks to simplify the PoP and lower capital and operational costs. The key elements of our strategy are to:

*Extend Technological Capabilities.* We have developed a family of core routing solutions designed to address a wide range of applications in carrier networks. Our products provide multi-generational investment protection enabling carriers to support new products in existing chassis. We plan to continue to invest in research and development to meet the evolving requirements of carrier networks. In addition, we plan to enhance the features on our products to address new market developments.

*Leverage Leading Distribution Channels.* We augment our direct sales efforts with distribution channels to penetrate new geographies and carrier accounts. We have established a strategic relationship with Nortel Networks to market, sell, and support our products to carriers worldwide. We have also established a strategic relationship with Huawei Technologies for sale and support of our products in Greater China. In addition, we have developed other channel relationships with local reseller partners in a number of geographic regions to expand our global presence.

*Continue Penetration of Key Carrier Accounts.* We strive to capture the market opportunity presented by carriers demanding additional capacity as well as carriers seeking to cost effectively support new and existing services. We initially focused on a select group of leading carriers with the TSR. With the introduction of the SSR in October 2001 and the QSR in November 2002, we have expanded our total addressable market to include smaller service providers, metropolitan area network cores, and international carriers. Avici TSR, SSR, and QSR routers can support a wide range of core applications from the smallest to the largest PoPs in world.

*Enable New Carrier Service Offerings.* We work closely with our customers, prospective customers, and distribution channel partners to understand carriers' network requirements. We use this knowledge to develop new features and functionalities to enable carriers to better support their customers. We will seek additional opportunities to enhance our product features and promote our products as an effective means for carriers to capitalize on new service opportunities.

*Rely on Strategic Outsourcing.* Our manufacturing outsourcing strategy enables us to focus our resources on our core competencies of product design and development. Although we design and develop our ASICs and other proprietary technologies, we select and work closely with ASIC fabrication and electronics manufacturing providers to promote the cost-effective, timely and reliable manufacture and testing of our products. We have also established a relationship with an off-shore project developer for selected software development projects.

### **Sales, Marketing, and Customer Service and Support**

We sell and market our products through our direct sales force, sales agents, systems integrators, and third party distributors, including Nortel Networks and Huawei Technologies.

In January 2004, we entered into a strategic relationship with Nortel Networks. Under the terms of this agreement, Nortel Networks will market, sell, and support our products on a worldwide basis. The initial term of the agreement is three years and it automatically renews for additional one-year terms. There is no minimum purchase commitment associated with the agreement. Nortel Networks will market and sell our products on a preferred basis under which certain end user customer accounts have been designated as exclusive for Nortel Networks, subject to meeting various milestones. In addition, technology from both companies will be incorporated as part of Nortel Networks' converged network solutions based upon IP technology. These converged network solutions will target VoIP, wireless/wireline convergence, and carrier data applications supplying carriers a transition to a converged network.

In the second quarter of 2003, we entered into a strategic relationship with Huawei Technologies. The agreement describes the terms and conditions under which Huawei Technologies may acquire products from us for sale, distribution, and support in Greater China. The initial term of the agreement is two years and may be renewed for additional one-year periods. The agreement has no minimum purchase commitment associated with it.

Our international sales are conducted through a direct sales force, systems integrators, distributors, and sales agents. In addition to Nortel Networks and Huawei Technologies, we have regional partners in Europe, Japan, Asia, and Latin America.

Our sales cycle to carriers typically is a lengthy and deliberate process. After preliminary discussions, prospective customers may receive evaluation equipment to encourage formal testing. The sales cycle normally includes laboratory testing in which our products are evaluated against competing products for performance, scalability, reliability, interoperability, and other measures. Upon completion of the laboratory tests, one product is typically selected for field trials in which the product is deployed in a carrier's network in a limited and controlled fashion. Only after successful completion of field trials will carriers place orders for commercial deployment across their networks over time.

We believe that a broad range of support services is critical to the successful installation and ongoing support of our products, the development of long-term relationships with customers and the generation of additional sales of our products to our customers. We are committed to providing our customers with the highest levels of service and support either directly or through the service organizations of our distribution partners.

### **Customers**

Our target end-user customers include incumbent local exchange carriers, inter-exchange carriers, postal telephone and telegraph operators or PTTs (international incumbent operators), international competitive carriers,

Internet service providers, and agencies of the United States government. During 2001, 2002, and 2003, unfavorable economic conditions caused a significant decrease in carrier capital spending and network expansion plans thus creating delays in purchasing decisions by telecommunications service providers. There are market indications that economic conditions may be improving and we expect that capital spending for IP networks may increase in the latter half of 2004.

During 2000, we entered into customer agreements with AT&T Corp., Qwest Communications, WilTel Communications Group, formerly known as Williams Communications, and Enron Broadband Services. These agreements provide the terms and conditions under which these customers may purchase equipment from us. At December 31, 2003, the status of these agreements were as follows:

Our agreement with AT&T has no minimum purchase commitment level and remains in effect until terminated by either party. AT&T has deployed our TSR product in thirteen locations within its North American IP backbone network and we expect continued deployments in additional locations.

Our agreement with Qwest provided for a minimum purchase commitment, which was met in 2002. The agreement continued until July 2003 and, by its terms, was automatically renewed for an additional one-year term. We do not expect additional purchases under this agreement.

In December 2001, Avici amended its agreement with WilTel and extended its term through December 2003. The amended agreement provided for a cash payment of \$8.5 million, which we received in December 2001 in lieu of remaining purchase commitments in the original agreement totaling \$25 million. The \$8.5 million payment represented \$2.7 million for product deliveries made in the fourth quarter of 2001, and \$5.8 million available as a credit applicable at various rates against future purchases through 2003. Approximately \$2.8 million of the \$5.8 million was used by WilTel to acquire equipment in 2003 and the remaining \$3 million was unused and expired as an available credit at December 31, 2003. The unused credit was included in other income in our results of operations for the year ended December 31, 2003.

Our agreement with Enron had a purchase commitment of \$15 million. In December 2001, Enron Broadband Services filed for United States bankruptcy protection. We do not expect to generate additional revenue from Enron.

Avici's products are currently in various stages of trials and tests with prospective customers, both internationally and domestically. Deployment of our products is dependent upon the successful completion of such trials. There can be no assurance as to the timing of the completion of these trials and tests or that their outcome will be favorable.

During the year ended December 31, 2001, AT&T, Qwest, and Enron, each accounted for greater than 10% of our net revenue. During the year ended December 31, 2002, AT&T and Qwest each accounted for greater than 10% of our net revenue. During the year ended December 31, 2003, AT&T accounted for greater than 10% of our net revenue.

## **Research and Development**

We believe we have a team of skilled engineers responsible for product design and development, quality assurance, and documentation. Our engineers have significant experience in optical networking, hardware and software, with particular strengths in the areas of high speed interconnect, scalable connection fabrics, ASIC development and Internet routing protocols. We believe that strong product development capabilities are essential to our strategy of enhancing our core technology and developing additional applications in an effort to maintain the competitiveness of our product offerings. We have made, and will continue to make, a substantial investment in research and development. Research and development expenses were \$46.5 million, \$55.8 million, and \$61.5 million for the years ended December 31, 2003, 2002, and 2001, respectively.

## **Competition**

The market for intelligent data networking equipment is intensely competitive, subject to rapid technological change and significantly affected by new product introductions and other market activities of industry participants. This market historically has been dominated by Cisco Systems, which as a result of its early leadership position in the market has been able to develop and promote a broad product line of routers. We also compete with other established companies such as Juniper Networks. We may experience reluctance by our prospective customers to replace or expand their current infrastructure solutions, which may be supplied by these competitors, with our products. In addition, these competitors have significantly broader product lines than we do and may bundle their products with other networking products that we do not offer. In order to compete effectively, we must deliver a technologically advanced product that is superior in meeting the needs of carriers, namely a product which:

- scales easily and efficiently with minimum disruption to the network;
- interoperates with existing network designs and equipment vendors;
- provides extremely high network reliability and performance; and
- creates a cost-effective solution for our target customers.

In addition, we must leverage our distribution partners to extend market acceptance of our products with carriers.

Many of our current and potential competitors have greater selling and marketing, technical, manufacturing, financial and other resources, more customers, greater market recognition, and more established relationships and alliances in the industry. As a result, these competitors may be able to develop, enhance and expand their product offerings more quickly, adapt more swiftly to new or emerging technologies and changes in customer demands, devote greater resources to the marketing and sale of their offerings, pursue acquisitions and other opportunities more readily, and adopt more aggressive pricing policies than us.

## **Intellectual Property**

We presently have ten patents granted in the United States and over 40 United States and foreign patent applications pending. Our success and ability to compete are dependent on our ability to develop and maintain the proprietary aspects of our technology and operate without infringing on the proprietary rights of others. We rely on a combination of patent protection, copyrights, trademarks, trade secret laws, contractual restrictions on disclosure, and other methods to protect the proprietary aspects of our technology. These legal protections afford only limited protection for our technology. We cannot be certain that patents will be granted based on our pending or any other applications, or that, even if issued, the patents will adequately protect our technology. We seek to protect our source code for our software, documentation and other written materials under trade secret and copyright laws, and we seek to limit disclosure of our intellectual property by requiring employees, consultants, and any third-party with access to our proprietary information to execute confidentiality agreements with us.

While we rely on patent, copyright, trade secret and trademark law to protect our technology, we also believe that factors such as the technological and creative skills of our personnel, new product developments, frequent product enhancements, and reliable product maintenance are essential to establishing and maintaining a technology leadership position. We cannot assure you that others will not develop technologies that are similar or superior to our technology.

Our success will depend upon our ability to obtain necessary intellectual property rights and protect our intellectual property rights. We cannot be certain that we will be able to obtain the necessary intellectual property rights or that other parties will not contest our intellectual property rights.

## **Manufacturing**

We outsource the manufacture and assembly of our products to contract manufacturers. We primarily use Celestica Corporation and Sanmina-SCI Corporation, both of which provide comprehensive manufacturing services, including assembly, test and control and procurement of material, on our behalf. We design product tests that are conducted using our test equipment by the contract manufacturer. We believe that the outsourcing of our manufacturing enables us to conserve the working capital that would be required to purchase capital equipment, allows us to adjust manufacturing volumes to meet changes in demand and enables us to more quickly deliver products.

## **Employees**

As of December 31, 2003, we had 201 employees. Our future success will depend in part on our ability to attract, retain and motivate highly qualified technical, sales and management personnel, for whom competition is intense. Our employees are not represented by any labor union. We believe our relations with our employees are good.

## **Financial Information about Geographic Areas**

See section (m) of Note 1 to Consolidated Financial Statements at Item 8 incorporated herein by reference.

## **Additional Information**

Our Internet address is [www.avici.com](http://www.avici.com). On our Investor Relations web site, located at [www.avici.com](http://www.avici.com), we post the following filings as soon as reasonably practicable after they are electronically filed with or furnished to the Securities and Exchange Commission: our annual report on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K, our proxy statement on Form 14A related to our annual stockholders' meeting and any amendments to those reports or statements filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. All such filings on our Investor Relations web site are available free of charge.

## **ITEM 2. PROPERTIES**

Our headquarters is currently located in a leased facility in North Billerica, Massachusetts, consisting of approximately 81,000 square feet under a lease expiring in October 2007. In the third quarter of 2001, we recorded a restructuring charge that included all remaining lease payments associated with an 18,000 square foot facility located in the same office complex, which expired in June 2003. In the third quarter of 2002 we recorded an additional restructuring charge which included all the remaining lease payments associated with a 51,000 square foot facility located in the same office complex, which we are no longer occupying and which lease expires in July 2004. We also lease sales office space in several locations in the United States, Europe and Asia.

The commercial real estate market in the Boston area is unpredictable in terms of available space, rental and occupancy rates and preferred locations. However, we expect our current space will be adequate to support our targeted growth for the next twelve to eighteen months.

## **ITEM 3. LEGAL PROCEEDINGS**

In addition to claims in the normal course of business, twelve purported securities class action lawsuits were filed against Avici and one or more of Avici's underwriters in Avici's initial public offering, and certain officers and directors of Avici. The lawsuits alleged violations of the federal securities laws and were docketed in the U.S. District Court for the Southern District of New York (the "Court") as: Felzen, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3363; Lefkowitz, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3541; Lewis, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3698; Mandel, et. al v. Avici Systems Inc., et al., C.A. No. 01-CV-3713; Minai, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3870; Steinberg, et al. v. Avici Systems Inc., et

al., C.A. No. 01-CV-3983; Pelissier, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-4204; Esther, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-4352; Zhous, et al. v. Avici Systems Inc. et al., C.A. No. 01-CV-4494; Mammen, et al. v. Avici Systems Inc., et. al., C.A. No. 01-CV-5722; Lin, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-5674; and Shives, et al. v. Banc of America Securities, et al., C.A. No. 01-CV-4956. On April 19, 2002, a consolidated amended class action complaint (the "Complaint"), which superseded these twelve purported securities class action lawsuits, was filed in the Court. The Complaint is captioned "In re Avici Systems, Inc. Initial Public Offering Securities Litigation" (21 MC 92, 01 Civ. 3363 (SAS)) and names as defendants Avici, certain of the underwriters of Avici's initial public offering, and certain of Avici's officers and directors. The Complaint, which seeks unspecified damages, alleges violations of the federal securities laws, including among other things, that the underwriters of Avici's initial public offering ("IPO") improperly required their customers to pay the underwriters excessive commissions and to agree to buy additional shares of Avici's stock in the aftermarket as conditions of receiving shares in Avici's IPO. The Complaint further claims that these supposed practices of the underwriters should have been disclosed in Avici's IPO prospectus and registration statement. In addition to the Complaint against Avici, various other plaintiffs have filed other substantially similar class action cases against approximately 300 other publicly traded companies and their IPO underwriters in New York City, which along with the case against Avici have all been transferred to a single federal district judge for purposes of case management. Avici and its officers and directors believe that the claims against Avici lack merit, and have defended the litigation vigorously. In that regard, on July 15, 2002, Avici, together with the other issuers named as defendants in these coordinated proceedings, filed a collective motion to dismiss the consolidated amended complaints against them on various legal grounds common to all or most of the issuer defendants.

On October 9, 2002, the Court dismissed without prejudice all claims against the individual current and former officers and directors who were named as defendants in our litigation, and they are no longer parties to the lawsuit. On February 19, 2003, the Court issued its ruling on the motions to dismiss filed by the issuer defendants and separate motions to dismiss filed by the underwriter defendants. In that ruling, the Court granted in part and denied in part those motions. As to the claims brought against Avici under the antifraud provisions of the securities laws, the Court dismissed all of these claims with prejudice, and refused to allow the plaintiffs an opportunity to re-plead these claims against Avici. As to the claims brought under the registration provisions of the securities laws, which do not require that intent to defraud be pleaded, the Court denied the motion to dismiss these claims as to Avici and as to substantially all of the other issuer defendants as well. The Court also denied the underwriter defendants' motion to dismiss in all respects.

In June 2003, Avici elected to participate in a proposed settlement agreement with the plaintiffs in this litigation. If ultimately approved by the Court, this proposed settlement would result in a dismissal, with prejudice, of all claims in the litigation against Avici and against any of the other issuer defendants who elect to participate in the proposed settlement, together with the current or former officers and directors of participating issuers who were named as individual defendants. The proposed settlement does not provide for the resolution of any claims against the underwriter defendants, and the litigation as against those defendants is continuing. The proposed settlement provides that the class members in the class action cases brought against the participating issuer defendants will be guaranteed a recovery of \$1 billion by insurers of the participating issuer defendants. If recoveries totaling \$1 billion or more are obtained by the class members from the underwriter defendants, however, the monetary obligations to the class members under the proposed settlement will be satisfied. In addition, Avici and any other participating issuer defendants will be required to assign to the class members certain claims that they may have against the underwriters of their IPOs.

The proposed settlement contemplates that any amounts necessary to fund the settlement or settlement-related expenses would come from participating issuers' directors and officers liability insurance policy proceeds as opposed to funds of the participating issuer defendants themselves. A participating issuer defendant could be required to contribute to the costs of the settlement if that issuer's insurance coverage were insufficient to pay that issuer's allocable share of the settlement costs. Avici expects that its insurance proceeds will be sufficient for these purposes and that it will not otherwise be required to contribute to the proposed settlement. Consummation



of the proposed settlement is conditioned upon, among other things, negotiating, executing, and filing with the Court final settlement documents, and final approval by the Court. Formal settlement documents for submission to the Court are currently being drafted. If the proposed settlement described above is not consummated, Avici intends to continue to defend the litigation vigorously. Moreover, if the proposed settlement is not consummated, Avici believes that the underwriters may have an obligation to indemnify Avici for the legal fees and other costs of defending this suit and that Avici's directors' and officers' liability insurance policies would also cover the defense and potential exposure in the suit. While Avici can make no promises or guarantees as to the outcome of these proceedings, Avici believes that the final result of these actions will have no material effect on Avici's consolidated financial condition, results of operations or cash flows.

The Securities and Exchange Commission (the "SEC") is conducting several investigations relating to Qwest Communications ("Qwest") and its business relationships. In the SEC investigation entitled "Issuers Related to Qwest," Avici understands that it is one of eleven companies whose business dealings with Qwest are being investigated. Avici has cooperated with these investigations and there has been no wrong doing by Avici alleged in any of these investigations. How long these investigations may continue and their ultimate outcome cannot be determined.

#### **ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

During the quarter ended December 31, 2003, no matters were submitted to a vote of security holders through the solicitation of proxies or otherwise.

## PART II

### ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

#### Price Range of Common Stock

Our common stock has been traded on the NASDAQ National Market under the symbol "AVCI" since July 28, 2000. Prior to that time, there was no public market for our stock. The following table sets forth, for the periods indicated, the high and low sale prices as reported on the NASDAQ National Market, adjusted to give effect of the November 8, 2002 one-for-four reverse stock split.

	<u>High</u>	<u>Low</u>
<b>Fiscal 2003</b>		
First Quarter .....	\$ 3.97	\$3.45
Second Quarter .....	\$ 6.98	\$3.47
Third Quarter .....	\$ 7.32	\$5.30
Fourth Quarter .....	\$ 8.73	\$5.56
<b>Fiscal 2002</b>		
First Quarter .....	\$13.52	\$6.08
Second Quarter .....	\$10.00	\$3.92
Third Quarter .....	\$ 4.52	\$2.32
Fourth Quarter .....	\$ 4.30	\$2.28

As of March 5, 2004, there were approximately 408 stockholders of record.

#### Dividend Policy

We have never paid or declared any cash dividends on our common stock or other securities and do not anticipate paying cash dividends in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of the Board of Directors and will be dependent upon our financial condition, results of operations, capital requirements, general business condition and such other factors as the Board of Directors may deem relevant.

Information concerning our equity compensation plans is set forth in our Definitive Proxy Statement with respect to our 2004 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission not later than 120 days after the end of the fiscal year, under the heading of "Equity Compensation Plan Information," which is incorporated herein by reference.

## ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with the consolidated financial statements and notes thereto and with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other financial data included elsewhere in this report. The statement of operations data for the years ended December 31, 2003, 2002 and 2001, and the balance sheet data as of December 31, 2003 and 2002 are derived from our audited consolidated financial statements, which are included elsewhere in this report. The statement of operations data for the years ended December 31, 2000 and 1999 and the consolidated balance sheet data as of December 31, 2001, 2000 and 1999 are derived from our audited consolidated financial statements which are not included in this report. The historical results are not necessarily indicative of results to be expected for any future period.

	Year Ended December 31,				
	2003	2002	2001	2000	1999
	(in thousands, except share and per share data)				
<b>Statement of Operations Data:</b>					
<b>Gross revenue:</b>					
Product revenue .....	\$ 35,135	\$ 29,388	\$ 52,868	\$ 15,775	\$ —
Service revenue .....	4,281	3,756	3,775	112	—
Gross revenue .....	39,416	33,144	56,643	15,887	—
Common stock warrant discount—Product .....	(2,451)	(3,266)	(3,267)	(817)	—
Net revenue .....	36,965	29,878	53,376	15,070	—
Cost of revenue—Product .....	11,606	15,133	50,223	11,157	—
Cost of revenue—Service .....	3,053	2,272	2,721	789	—
Gross margin .....	22,306	12,473	432	3,124	—
<b>Operating expenses:</b>					
Research and development .....	46,483	55,844	61,527	54,055	36,821
Sales and marketing .....	10,863	13,462	18,848	11,928	5,601
General and administrative .....	6,077	7,178	9,538	4,771	3,041
Stock-based compensation .....	1,022	4,111	15,003	18,659	3,171
Restructuring charges .....	—	925	1,061	—	—
Common stock warrant expense .....	—	—	—	2,400	—
Purchased in-process research and development .....	—	—	—	4,000	—
Total operating expenses .....	64,445	81,520	105,977	95,813	48,634
Loss from operations .....	(42,139)	(69,047)	(105,545)	(92,689)	(48,634)
Interest income .....	2,181	4,201	10,698	8,735	1,533
Interest expense .....	(30)	(161)	(645)	(733)	(689)
Other income, net * .....	2,957	227	—	—	—
Net loss .....	\$ (37,031)	\$ (64,780)	\$ (95,492)	\$ (84,687)	\$ (47,790)
Basic and diluted net loss per share .....	\$ (3.02)	\$ (5.20)	\$ (7.75)	\$ (14.77)	\$ (55.95)
Weighted average common basic and diluted shares .....	12,248,606	12,456,221	12,314,577	5,734,596	854,134
Pro forma basic and diluted net loss per share (unaudited) .....				(8.11)	
Pro forma weighted average common basic and diluted shares (unaudited) .....				10,440,934	

\* Includes \$3.0 million of customer credits that expired unused in 2003 and \$0.3 million of gain from an insurance settlement in 2002.

Prior to Avici's initial public offering which was consummated on August 2, 2000, weighted average common shares used in computing basic and diluted net loss per share exclude unvested shares of common stock subject to repurchase rights, as well as shares issuable upon conversion of redeemable convertible preferred stock. Weighted average common shares used in computing pro forma basic and diluted net loss per share includes the weighted average effect of the foregoing unvested restricted shares of common stock as well as shares issuable upon conversion of redeemable convertible preferred stock from the respective dates of issuance. Basic and diluted net loss per share are the same because all outstanding common stock options have been excluded, as they are considered antidilutive (see footnote 1(j) of the Notes to the Consolidated Financial Statements).

	As of December 31,				
	2003	2002	2001	2000	1999
	( in thousands )				
<b>Balance Sheet Data:</b>					
Cash, cash equivalents and marketable securities . . . .	\$ 95,930	\$125,089	\$164,441	\$254,931	\$ 47,917
Working capital . . . . .	56,821	64,725	116,672	225,340	40,863
Total assets . . . . .	116,046	158,154	220,277	302,088	61,839
Long-term obligations, less current portion . . . . .	—	46	753	3,072	6,390
Redeemable convertible preferred stock . . . . .	—	—	—	—	123,441
Total stockholders' equity (deficit) . . . . .	100,227	134,897	193,687	267,878	(79,746)

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with "Selected Consolidated Financial Data" and the accompanying consolidated financial statements and related notes included elsewhere in this Form 10-K. The following discussion contains forward-looking statements which involve risks and uncertainties. We make such forward-looking statements under the provision of the "Safe Harbor" section of the Private Securities Litigation Reform Act of 1995. Any forward-looking statements should be considered in light of the factors described below in this Item 7 under "Factors That May Affect Future Results." Actual results may vary materially from those projected, anticipated or indicated in any forward-looking statements. In this Item 7, the words "anticipates," "believes," "expects," "intends," "future," "could," "will," and similar words or expressions (as well as other words or expressions referencing future events, conditions or circumstances) identify forward-looking statements.

### Overview

Avici Systems provides high-speed data networking equipment that enables telecommunications companies and Internet service providers to transmit high volumes of information across their networks.

Since our inception, we have incurred significant losses. As of December 31, 2003, we had an accumulated deficit of \$365.6 million. Our operating activities from inception through 1999 were primarily devoted to research and development, including the design and development of our proprietary application specific integrated circuits, or ASICs, and software, and system testing the Avici Terabit Switch Router (TSR®). Revenue was first recognized during the first quarter of 2000. Since then we have also built our administrative, marketing, sales, customer support and manufacturing organizations and developed strategic relationships with systems integrators, distributors, customers and complementary vendors. We have not achieved profitability on a quarterly or an annual basis and anticipate that we will continue to incur operating losses in the foreseeable future. We have a lengthy sales cycle for our products and, accordingly, we expect to incur significant selling and other expenses before we realize the related revenue. During 2001 and 2002 we took actions to realign our cost structure in reaction to industry conditions resulting in a significant decrease in capital spending by

telecommunications service providers. We expect that sales and marketing, research and development, and general and administrative expenses will increase as our business expands. As a result, we will need to generate significant revenues to achieve and maintain profitability.

During the fourth quarter of 1999 we introduced the TSR which is purpose-built for the stresses of carrier core routing in large IP networks. The first TSR sale occurred during the first quarter of 2000. During 2001 we introduced the Avici Stackable Switch Router (SSR™), a rack-mountable scalable router for carriers and service providers with smaller core networks. The first SSR sale occurred during the fourth quarter of 2001. During the fourth quarter of 2002, we introduced the Avici Quarter-rack Scalable Router (QSR™), which provides customers with one of the smallest footprint, highest density routers commercially available. The first QSR sale occurred during the fourth quarter of 2003. We currently market our products to major carriers in North America through our direct sales force and third party distribution. We also market our products internationally through sales agents, systems integrators and distributors, and through a direct sales force in Europe and Asia. We currently provide product installation and customer field support through our internal customer service organization and third-party support organizations. During 2003 we entered into a strategic relationship with Huawei Technologies (Huawei) for sale of our products in Greater China and distribution arrangements with several resellers. In January 2004 we entered into a worldwide strategic relationship with Nortel Networks (Nortel) to market, sell and support our products.

Our target end-user customers include incumbent local exchange carriers, inter-exchange carriers, postal telephone and telegraph operators (PTTs) (international incumbent operators), international competitive carriers, Internet service providers, and agencies of the United States government. Our products have been deployed at AT&T Corp. (AT&T), Qwest Communications (Qwest), several agencies of the United States government, and in laboratory environments including the France Telecom R&D VTHD research network and Chung Hwa Telecom, among others. Our products are currently in trials and tests with additional prospective customers, both internationally and domestically. There can be no assurance as to the timing of the completion of these trials and tests or that their outcome will be favorable.

## Revenues

We expect that in the foreseeable future, substantially all of our revenue will continue to depend on sales of our TSR, SSR, and QSR to current customers and a limited number of potential new customers. We also expect to generate revenue through our distribution and OEM partnering arrangements. Generally, these customers and partners are not contractually committed to purchase any minimum quantities of products from us.

The initial term of our procurement agreement with AT&T continued through December 2003. The agreement remains in effect unless terminated by either party. We have no current intention to terminate the agreement and we are not aware of any intention of AT&T to terminate the agreement. The agreement describes the conditions under which AT&T may acquire equipment from us. The agreement has no minimum purchase commitment associated with it.

Our procurement agreement with Qwest provided for an undisclosed minimum purchase commitment, which was met in 2002. The agreement continued through July 2003 and, by its terms, was automatically renewed for an additional one year term. We do not expect additional purchases under this agreement.

Avici amended its procurement agreement with WilTel Communications Group, formerly known as Williams Communications (WilTel) and extended its term through December 2003. The amended agreement provided for a cash payment of \$8.5 million, which we received in December 2001 representing \$2.7 million for product deliveries made in the fourth quarter of 2001, and \$5.8 million in lieu of remaining purchase commitments in the original agreement totaling \$25 million. The \$5.8 million was deferred and available as a credit at varying rates against future purchases through 2003. During the first and fourth quarters of 2003 WilTel utilized credits of \$1.5 million and \$1.3 million, respectively. Upon expiration of the agreement in December 2003, we recorded the remaining unused credits of \$3.0 million as other income in the fourth quarter of 2003.

In April 2003, we entered into a strategic relationship with Huawei. The agreement describes the terms and conditions under which Huawei may acquire equipment from us for sales and distribution in Greater China. The agreement has no minimum purchase commitment associated with it.

In January 2004, we entered into a worldwide three-year strategic agreement with Nortel. Under this agreement, Nortel will market, sell and support Avici's carrier-class core routers as part of its converged network solutions based on Internet Protocol (IP) technology. The agreement has no minimum purchase commitment associated with it.

### **Restructuring Charges**

From the first quarter of fiscal 2000 through the second quarter of fiscal 2001 our net revenues increased sequentially each quarter. However, our gross revenue decreased 52% from the second quarter to third quarter of fiscal 2001 due to unfavorable economic conditions resulting in a significant decrease in capital spending by telecommunications service providers. In response to these conditions, we implemented restructuring programs during the third and fourth quarters of 2001 and during the third quarter of 2002, designed to decrease operating expenses and align resources with future growth opportunities. As a result of these programs, we recorded net charges of \$1.1 million in 2001 and \$0.9 million in 2002.

The 2001 restructuring programs included workforce reductions totaling 95 employees, or approximately 24% of the then current workforce. As a result of the 2002 restructuring program, we reduced workforce by an additional 75 employees, or 24% of the then current workforce. The affected employees received severance and other benefits pursuant to a benefits program. We recorded charges totaling \$0.9 million for termination benefits in 2001, and an additional \$0.9 million for termination benefits in 2002. These charges were before the reversal of non-cash stock based compensation expense associated with forfeited options of \$1.5 million and \$1.0 million for the 2001 and 2002 restructuring programs, respectively. Termination benefits relating to the 2001 workforce reductions were fully paid in 2002. Termination benefits relating to the 2002 workforce reductions were fully paid in 2003. In 2003, \$0.1 million of termination benefits relating to the 2002 workforce reductions were paid. In addition to the workforce reductions, we recorded a charge of \$1.7 million in 2001, and \$1.1 million in 2002, to dispose redundant assets and to accrue lease payments associated with excess facilities. In 2003, we paid \$0.1 million and \$0.6 million in lease payments relating to the 2001 and 2002 restructuring programs, respectively. Restructuring reserves for future lease payments was \$0.4 million at December 31, 2003. These restructuring programs as well as other cost containment efforts resulted in decreases in operating expenses of \$13.1 million in 2003 as compared to 2002 and \$13.4 million in 2002 as compared to 2001, excluding the effects of stock-based compensation and restructuring charges.

Additionally, in the third quarter of 2001 we recorded a charge of \$17.2 million as an element of product cost of revenue to reflect a write down of inventories and inventory commitments for long lead-time items that were considered to be in excess of the then foreseeable demand. The charge included commitments to suppliers including ASICs, module components, and TSR bay components totaling approximately \$9.6 million and inventory components and finished goods on hand relating to the TSR product, totaling approximately \$7.6 million which were identified as in excess of the then forecasted demand for the next 12 months. Since the end of the third quarter of fiscal 2001, we paid approximately \$9.4 million to settle inventory commitments with suppliers, and have discarded approximately \$6.3 million of the excess inventory on hand.

In 2003 and 2002, we utilized inventory previously reserved of \$3.6 million and \$2.5 million, respectively, primarily as a result of products sold in excess of our expectations. The utilization relating to the \$17.2 million of inventory deemed to be in excess of foreseeable requirements during the third quarter of 2001 was \$1.9 million and \$2.5 million in 2003 and 2002, respectively. In the event we are able to utilize inventory on hand that was previously reserved, we will continue to recognize credits to product cost of revenue, however, we do not expect significant utilization of such reserved inventory to result in credits in the future.

We expect telecommunications service providers to continue to maintain conservative levels of capital spending in the near term. Accordingly, if spending in the telecommunications equipment market continues to deteriorate, or if we change our business strategy, further restructuring might be necessary and such restructuring might have an adverse impact on the results of operations and financial condition of Avici.

We outsource our manufacturing operations to contract manufacturers that assemble and test our products in accordance with our specifications. Accordingly, a significant portion of our product cost of revenue involves payment to these entities. Avici's cost of revenue also includes overhead costs, primarily for material procurement associated with our manufacturing. Warranty costs and inventory provisions are expensed as cost of revenue-product.

### **Research and Development**

Research and development expenses consist primarily of salaries and related employee costs, depreciation expense on laboratory equipment, prototype equipment, materials costs and third-party costs and fees related to the development and prototyping of our proprietary technology. As a result of the restructuring actions taken in 2001 and 2002, annual research and development expenses have decreased. In the future, research and development expenses may increase as demand for our products, product features and functionality increases.

### **Sales and Marketing**

Sales and marketing expenses consist primarily of salaries and related employee costs, sales commissions, travel, public relations, training and other costs associated with marketing material and tradeshow. As a result of the restructuring actions taken in 2001 and 2002, annual sales and marketing expenses have decreased. In the future, we expect annual sales and marketing expenses may increase in absolute dollars as demand for our products increases and we broaden our sales infrastructure, establish sales offices in new locations domestically and internationally and initiate new marketing programs.

### **General and Administrative**

General and administrative expenses consist primarily of salaries and related costs for executive, finance, legal, facilities, human resources and information technology personnel and professional fees. As a result of the restructuring actions taken in 2001 and 2002, annual general and administrative expenses have decreased. In the future, we expect that general and administrative expenses may increase in absolute dollars as we add personnel and incur additional costs related to the growth of our business.

### **Common Stock Warrants**

In December 2000, in connection with the execution of a nonexclusive systems and services agreement, Avici issued a warrant to AT&T to purchase 212,500 shares of Avici's common stock at a per-share exercise price of \$110.92. The agreement between Avici and AT&T provides AT&T with the ability, but not the obligation, to purchase equipment and services from Avici. The warrant is nonforfeitable, fully exercisable and has a term of five years from the date of issuance. The fair value of the warrant was calculated using the Black-Scholes valuation model to be \$9.8 million. The fair value of the warrant was deferred as a reduction to equity and was amortized as an offset to gross revenue on a straight-line basis over the three-year term of the agreement. The fair value of the warrant was fully amortized at December 31, 2003.

In January 2004, in connection with a three-year strategic OEM agreement, Avici issued a warrant to Nortel to purchase 800,000 shares of Avici common stock at an exercise price of \$8.03 per share. The agreement between Avici and Nortel provides Nortel with the ability, but not the obligation, to purchase equipment and services from Avici for its own use or for resale. The warrant is nonforfeitable and has a term of approximately seven years from the date of issuance and is exercisable after seven years. The right to exercise the warrant may

be accelerated if Nortel achieves certain performance milestones. The fair value of the warrant was calculated to be approximately \$6.3 million using the Black-Scholes valuation model, and will be recorded as a reduction of revenue on a systematic basis over the economic life of the OEM agreement, which is expected to be three years.

### **Stock-based Compensation**

Through December 31, 2001, Avici had recorded cumulative non-cash deferred compensation, primarily relating to pre-IPO grants, as an element of stockholders' equity, representing the aggregate difference between the deemed fair value of Avici's common stock and the exercise price of stock options and restricted stock granted and the selling price of stock sold. The deferred compensation is being recognized as an expense over the vesting period of the stock options and restricted stock. During the years ended December 31, 2003, 2002 and 2001, Avici recorded approximately \$1.0 million, \$4.1 million and \$15.0 million, respectively, of compensation expense. Avici expects to recognize compensation expense of approximately \$0.3 million in 2004 based on stock options and restricted stock granted prior to December 31, 2003.

### **Critical Accounting Policies**

Avici considers the following accounting policies related to revenue recognition, inventory valuation, warranty liabilities, and long-lived assets to be critical accounting policies due to the estimation processes and judgments involved in each. Avici bases its estimates on historical experience and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

### **Revenue Recognition**

Avici recognizes revenue from product sales upon shipment, provided that a purchase order has been received or a contract has been executed, there are no uncertainties regarding customer acceptance, the sales price is fixed or determinable and collectibility is deemed probable. If uncertainties regarding customer acceptance exist, Avici recognizes revenue when those uncertainties are resolved. For arrangements that include the delivery of multiple elements, revenue is allocated to the various elements based on vendor-specific objective evidence of fair value (VSOE). Avici uses the residual method when VSOE does not exist for one of the delivered elements in an arrangement. We also generate revenue from support and maintenance as well as installation and service. We defer revenue from support and maintenance contracts and recognize it ratably over the period of the related agreements. We recognize revenue from installation and other services as the work is performed. In the event the Company is unable to meet one or all of the above criteria on a timely basis, revenue recognized for any reporting period could be adversely affected.

### **Inventory Valuation**

We value our inventory at the lower of the actual cost to purchase or the current estimated market value. We regularly review inventory quantities on hand and inventory commitments with suppliers and record a provision for potentially excess and obsolete inventory based primarily on our estimated forecast of product demand for up to the next twelve months. As demonstrated during 2001, demand for our products can fluctuate suddenly and significantly due to changes in economic and business conditions. A significant increase in demand for our products could result in a short-term increase in the cost of inventory purchases while a significant decrease in demand could result in an increase in the amount of excess inventory on hand and at suppliers. In addition, our industry is characterized by rapid technological change, frequent new product development, and rapid product obsolescence that could result in an increase in the amount of obsolete inventory on hand and at suppliers. Therefore, although we make every effort to ensure the accuracy of our forecasts of future product demand, any significant unanticipated changes in demand or technological developments could have a significant impact on the value of our inventory and our reported operating results.



## **Warranty Liabilities**

Our warranties require us to repair or replace defective product returned to us during such warranty period at no cost to the customer. We record an estimate for warranty related costs at the time of sale based on our actual historical return rates and repair costs. While our warranty costs have historically been within our expectations and the provisions established, we cannot guarantee we will continue to experience the same warranty return rates or repair costs that we have in the past. A significant increase in product return rates, or a significant increase in the costs to repair our products, could have a material adverse impact on future operating results for the period or periods in which such returns or additional costs materialize and thereafter.

## **Long-lived Assets**

We review property, plant, and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of such an asset may not be recoverable. Recoverability of these assets is measured by comparison of their carrying amount to future undiscounted cash flows the assets are expected to generate over the remaining economic life. If such assets are considered to be impaired, the impairment to be recognized in earnings equals the amount by which the carrying value of the assets exceeds their fair market value determined by either a quoted market price, if any, or a value determined by utilizing a discounted cash flow technique. Although we have recognized no material impairment adjustments related to our property, plant, and equipment, except those made in conjunction with restructuring actions, deterioration in our business in the future could lead to such impairment adjustments in future periods. Evaluation of impairment of long-lived assets requires estimates of future operating results that are used in the preparation of the expected future undiscounted cash flows. Actual future operating results and the remaining economic lives of our long-lived assets could differ from the estimates used in assessing the recoverability of these assets. These differences could result in impairment charges, which could have a material adverse impact on our results of operations.

## **Results of Operations**

### ***Fiscal Year ended December 31, 2003 Compared to Fiscal Year Ended December 31, 2002***

#### **Revenue**

Gross revenue increased \$6.3 million to \$39.4 million in 2003 from \$33.1 million in 2002. Gross revenue increased in 2003 primarily due to an increase in our product volume from our customers. Net revenue, after warrant amortization of \$2.5 million and \$3.3 million in 2003 and 2002 respectively, increased \$7.1 million to \$37.0 million in 2003 from \$29.9 million in 2002. Service revenue increased \$0.5 million to \$4.3 million in 2003 from \$3.8 million in 2002. Service revenue increased in 2003 primarily due to a larger installed base. One customer accounted for 81% of net revenue in 2003. Two customers accounted for 53% and 42% of net revenue in 2002.

#### **Cost of Revenue**

Total cost of revenue decreased \$2.7 million to \$14.7 million in 2003 from \$17.4 million in 2002. Product cost of revenue was 36% and 58% of product net revenue in 2003 and 2002, respectively. Product cost of revenue in 2003 and 2002 are net of credits for the utilization of inventory previously reserved of \$3.6 million and \$2.5 million, respectively, of which \$1.9 million and \$2.5 million in 2003 and 2002 relates to the one time \$17.2 million inventory related charge recorded in 2001 as a result of industry downturn. The lower percentage in 2003 is primarily due to larger inventory utilization credits in 2003, lower costs associated with changes in our product mix in 2003, as well as cost reductions achieved with key suppliers and reductions of fixed costs. Service cost of revenue was 71% and 60% of service revenue in 2003 and 2002, respectively. The higher percentage in 2003 is primarily the result of increased service infrastructure aligned with current installed base.

Product cost of revenue as a percentage of net revenue is affected by changes in the mix of products sold, discounts, channels of distribution, changes in material costs, excess inventory and obsolescence charges, changes in volume and pricing competition. We anticipate product cost of revenue as a percentage of net revenue will increase in the future due to an expected increase in sales through distribution channels, which are typically at a higher discount.

### **Research and Development**

Research and development expenses decreased \$9.3 million to \$46.5 million in 2003 from \$55.8 million in 2002. The decrease in 2003 was primarily due to a reduction in personnel related costs as a result of restructuring programs implemented, lower project related costs and other discretionary spending reductions, partially offset by an increase in outside contract services.

### **Sales and Marketing**

Sales and marketing expenses decreased \$2.6 million to \$10.9 million in 2003 from \$13.5 million in 2002. The decrease in 2003 was primarily due to a reduction in personnel related costs as a result of restructuring programs implemented, lower travel related costs and selective participation in marketing programs.

### **General and Administrative**

General and administrative expenses decreased \$1.1 million to \$6.1 million in 2003 from \$7.2 million in 2002. The decrease in 2003 was primarily due to a reduction in personnel related costs as a result of restructuring programs implemented and other spending decreases.

### **Stock-Based Compensation**

Stock-based compensation, primarily associated with pre-IPO grants, decreased \$3.1 million to \$1.0 million in 2003 from \$4.1 million in 2002. The decrease in 2003 is primarily the result of certain option grants becoming fully vested and the related compensation becoming fully amortized, as well as the forfeiture of stock options associated with employee terminations.

### **Interest Income**

Interest income decreased \$2.0 million to \$2.2 million in 2003 from \$4.2 million in 2002. The decrease in 2003 is primarily due to the decrease in invested cash balances resulting from the use of cash to fund operations in 2003 and lower investment yields available in the market.

### **Interest Expense**

Interest expense decreased \$0.1 million to \$0.1 million in 2003 from \$0.2 million in 2002 primarily due to decreases in equipment financed through capital leases.

### **Other Income**

Other income increased \$2.7 million to \$3.0 million in 2003 from \$0.3 million in 2002. The increase in 2003 is due to the expiration of certain customer credits totaling \$3.0 million in 2003 that were previously recorded in deferred revenue.

### **Provision for income taxes**

We have not recorded a provision for income taxes because we have experienced net losses from our inception. As of December 31, 2003, we had net operating loss and tax credit carryforwards of approximately \$295.5 million and \$9.2 million, respectively. Approximately \$13.1 million of Avici's net operating loss

carryforwards relate to deductions associated with Avici's stock option plans, which will be benefited through stockholders' equity if realized. The federal net operating loss carryforwards expire beginning in 2012 through 2023, and are subject to review and possible adjustment by the Internal Revenue Service (IRS). The utilization of the net operating loss carryforwards may be subject to annual limitations as a result of changes in the ownership of the Company. We did not record any tax benefits relating to these losses due to the uncertainty surrounding the realization of our deferred tax assets.

### ***Fiscal Year ended December 31, 2002 Compared to Fiscal Year Ended December 31, 2001***

#### **Revenue**

Net revenue decreased \$23.5 million to \$29.9 million in 2002 from \$53.4 million in 2001. Avici experienced lower product sales during the 2002 primarily as a result of reduce capital spending by telecommunications service providers. Service revenue was \$3.8 million for both 2002 and 2001. Net revenue is recorded net of common stock warrants discount, a non-cash charge, which totaled \$3.3 million in 2002 and 2001. Two customers accounted for 53% and 42% of revenue in 2002. Three customers accounted for 47%, 23% and 13% of net revenue in 2001.

#### **Cost of Revenue**

Total cost of revenue decreased \$35.5 million to \$17.4 million in 2002 from \$52.9 million in 2001. Product cost of revenue was 58% and 101% of product net revenue in 2002 and 2001, respectively. Product cost of revenue in 2002 is net of credits for the utilization of inventory previously reserved of \$2.5 million. Product cost of revenue in 2001 includes the \$17.2 million charge for excess and obsolete inventory. The lower percentage in 2002 is primarily the result of \$17.2 million charge for excess and obsolete inventory in 2001 and inventory utilization credits of \$2.5 million in 2002. Service cost of revenue was 60% of service gross revenue in 2002, as compared to 72% in 2001. The lower percentage in 2002 is primarily the result of cost reductions in Avici's service infrastructure to align it with current revenue levels. We anticipate cost of revenue, as a percentage of both gross and net revenue, and after excluding the impact of the charge for excess and obsolete inventory, to decrease on a year over year basis as the future revenue mix continues to shift to higher margin modules and as fixed overhead costs are spread over an even greater revenue base.

#### **Research and Development**

Research and development expenses decreased \$5.7 million to \$55.8 million in 2002 from \$61.5 million in 2001. The decrease in 2002 was primarily due to a reduction in personnel related costs as a result of restructuring programs implemented, partially offset by an increase in depreciation expense associated with the build out of Avici's internal development network.

#### **Sales and Marketing**

Sales and marketing expenses decreased \$5.3 million to \$13.5 million in 2002 from \$18.8 million in 2001. The decrease in 2002 was primarily due to a reduction in personnel related costs as a result of restructuring programs implemented and decreases in other discretionary marketing expenses.

#### **General and Administrative**

General and administrative expenses decreased \$2.3 million to \$7.2 million in 2002 from \$9.5 million in 2001. The decrease in 2002 was primarily due to a reduction in personnel related costs as a result of restructuring programs implemented and decreases in outside service costs relating to a new business system implemented during 2001, and other spending decreases.

### **Stock-Based Compensation**

Stock-based compensation decreased \$10.9 million to \$4.1 million in 2002 from \$15.0 million in 2001. This decrease is primarily the result of certain option grants reaching full vesting, and the related compensation becoming fully amortized, and the forfeiture of stock options associated with employee terminations.

### **Interest Income**

Interest income decreased \$6.5 million to \$4.2 million in 2002 from \$10.7 million in 2001. This decrease is primarily due to the decrease in invested cash balances resulting from the use of cash to fund operations in 2002, and lower investment yields available in the market.

### **Interest Expense**

Interest expense decreased \$0.4 million to \$0.2 million in 2002 from \$0.6 million in 2001 primarily due to decreases in equipment financed through capital leases.

### **Other Income**

During 2002, Avici recorded net gain of \$0.3 million relating to the excess of insurance proceeds at replacement value over the net book value of certain damaged information technology equipment. This gain was partially offset by the loss on disposal of non-operational laboratory equipment.

### **Provision for income taxes**

We have not recorded a provision for income taxes because we have experienced net losses from our inception. As of December 31, 2002, we had net operating loss and tax credit carryforwards of approximately \$263.1 million and \$8.3 million, respectively. Approximately \$9.7 million of Avici's net operating loss carryforwards relate to deductions associated with Avici's stock option plans, which will be benefited through stockholders' equity if realized. The federal net operating loss carryforwards expire beginning in 2012 through 2022, and are subject to review and possible adjustment by the Internal Revenue Service (IRS). The utilization of the net operating loss carryforwards may be subject to annual limitations as a result of changes in the ownership of the Company. We did not record any tax benefits relating to these losses due to the uncertainty surrounding the realization of our deferred tax assets.

### **Liquidity and Capital Resources**

Since our inception, we have financed our operations through private sales of equity securities, an initial public offering in July 2000, and, to a lesser extent, equipment lease financing. From inception through December 31, 2003, we raised approximately \$410.3 million from these equity offerings. In 2003, we used \$21.9 million in cash for operating activities, compared to \$27.1 million used in 2002, and \$53.5 million used in the year ended December 31, 2001. The decrease in cash usage in 2003 as compared to 2002 is a result of reduced operating losses due to improving gross margin and the effects of restructuring programs implemented, partially offset by an increase in working capital. The decrease in cash usage in 2002 as compared to 2001 is a result of reduced operating losses due to restructuring programs implemented, and improved inventory management resulting in lower investments in inventory. We expect working capital requirements will increase further in the future if product sales increase, creating larger customer receivable balances and the need to build inventory in advance of shipment. In addition, we expect to selectively invest in infrastructure costs needed to support the scale of operations. We also anticipate the accrual for excess facility costs of \$0.4 million to be fully paid by the end of the third quarter of 2004.

Purchases of property and equipment were \$5.5 million in 2003, compared to \$10.0 million in 2002, and \$37.7 million in 2001. Purchases of property and equipment decreased in 2003, as compared to both 2002 and 2001, as we focused investments in 2003 towards purchases of laboratory equipment and software required to

support priority research and development projects, and to maintain and enhance the customer support infrastructure. The timing and amount of future capital expenditures will depend primarily on our future growth. We expect that capital expenditures will be between \$8 million and \$10 million in 2004.

During the third quarter of 2002, the Board of Directors authorized a share repurchase program, in effect for a one year period, to acquire up to 1.5 million shares (after giving effect to a one-for-four reverse stock split effective November 8, 2002) of our common stock in the open market at times and prices considered appropriate by us. The share buyback program was initiated during the fourth quarter of 2002, and we purchased 291,708 shares at an aggregate cost of approximately \$1.4 million in 2003. During the program we purchased 482,308 shares at an aggregate cost of approximately \$2.1 million. The share repurchase program terminated during the third quarter of 2003.

We expect that working capital and capital expenditure requirements may increase if product sales increase, creating larger customer receivable balances, the need to build inventory in advance of shipment and the need for increased levels of test and management information systems equipment. At December 31, 2003, we had cash and cash equivalents of \$22.4 million, short-term marketable securities of \$41.2 million, and long-term marketable securities of \$32.3 million, totaling \$95.9 million. In addition \$0.4 million of restricted cash is included in Other Assets as deposits for facility related obligations. We believe that our existing cash, cash equivalents and marketable securities will be sufficient to meet our normal operating and capital requirements for the next 24 months. However, we could be required, or could elect, to raise additional funds during that period and we may need to raise additional capital in the future. We may not be able to obtain additional capital on terms favorable to us or at all. The issuance of additional equity or equity-related securities would be dilutive to our stockholders. If we cannot raise funds on acceptable terms, or at all, we may not be able to develop or enhance our products or respond appropriately to competitive pressures, which would seriously limit our ability to increase our revenue and grow our business.

### Contractual Obligations

At December 31, 2003 our contractual obligations, which consist entirely of contractual commitments for operating leases, capital leases and inventory purchase commitments, were as follows (in thousands):

<u>Fiscal Year</u>	<u>Operating Leases</u>	<u>Capital Leases</u>	<u>Inventory Purchase Commitment</u>	<u>Total</u>
2004 .....	\$1,407	\$ 46	\$2,200	\$3,653
2005 .....	1,061	—	—	1,061
2006 .....	1,115	—	—	1,115
2007 .....	743	—	—	743
Thereafter .....	—	—	—	—
Total future contractual commitments .....	<u>\$4,326</u>	<u>\$ 46</u>	<u>\$2,200</u>	<u>\$6,572</u>

Payments made under operating leases will be treated as rent expense for the facilities currently being utilized, or as a reduction of the restructuring liability for payments associated with the excess facility. We outsource the manufacture and assembly of our products. During the normal course of business, in order to maintain competitive lead times for customers and adequate supply of components, we enter into agreements with certain suppliers to procure inventory based upon criteria defined by us.

### Off-Balance Sheet Arrangements

As of December 31, 2003, we did not have any off-balance-sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

## **Recent Accounting Pronouncements**

In November 2002, the Emerging Issues Task Force reached a consensus on Issue No. 00-21 (EITF 00-21), "Revenue Arrangements with Multiple Deliverables." EITF 00-21 provides guidance on accounting for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. Avici adopted EITF 00-21 at the beginning of the third quarter of 2003 and it did not have a material impact on Avici's consolidated financial position or results of operations.

In January 2003, the Financial Accounting Standards Board issued Interpretation No. 46 (FIN No. 46), "Consolidation of Variable Interest Entities," which is an interpretation of Accounting Research Bulletin No. 51, "Consolidated Financial Statements," and addresses consolidation by business enterprises of variable interest entities. FIN No. 46 requires existing unconsolidated variable interest entities to be consolidated by their primary beneficiaries if the entities do not effectively disperse risks among parties involved. Variable interest entities that effectively disperse risks will not be consolidated unless a single party holds an interest or combination of interests that effectively recombines risks that were previously dispersed. FIN No. 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. It applies in the first fiscal year or interim period beginning after March 15, 2004, to variable interest entities in which an enterprise holds a variable interest that it acquired before February 1, 2003. FIN No. 46 applies to public enterprises as of the beginning of the applicable interim or annual period. In 2003 Avici did not create a variable interest entity or obtain an interest in a variable interest entity. Avici does not expect the provisions of FIN No. 46 to have a material impact on Avici's consolidated financial position or results of operations.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity," which addresses the standards for classifying and measuring certain financial instruments with characteristics of both liabilities and equity. SFAS 150 shall be effective for financial instruments entered into or modified after May 31, 2003 and otherwise shall be effective at the beginning of the first interim period beginning after June 15, 2003. Avici adopted the applicable provisions of this statement in the third quarter of 2003 and it did not have a material impact on Avici's consolidated financial position or results of operations.

## **Factors That May Affect Future Results**

***We expect that substantially all of our revenues will be generated from a limited number of customers. Our revenues will not grow if our products are not selected for or do not successfully pass field trial tests.***

We currently have a limited number of customers. One customer accounted for 81% of net revenue in 2003 and two customers accounted for 95% of net revenue in 2002. We expect that in the foreseeable future substantially all of our revenues will continue to depend on sales of our products to a limited number of customers. The loss of any major customer could materially reduce our revenue and cash flow, and adversely affect our ability to achieve and maintain profitability. Our sales cycle typically involves a lengthy sales consultation process followed by laboratory testing in which our product is evaluated against competing products. If our product is selected for field trials after laboratory testing, our product is then tested in an operational environment. Generally, our customers do not contractually commit to purchase any minimum quantities of products from us until we have successfully demonstrated specific performance criteria in these field trials. We cannot predict whether our products will successfully complete laboratory tests or field trials with particular customers or whether these customers will order and commercially deploy our products in meaningful volumes. The failure of current or prospective customers to purchase our products for any reason, including the failure to pass field trials, any determination not to install our products in their networks or any downturn in their business, would seriously harm our ability to build a successful business. Even if we are successful in promoting the adoption of our products, customers usually test, purchase and deploy competitive products for various segments of their networks. Accordingly, we will likely face additional competitive challenges in further penetrating customer accounts.

***We currently depend on a limited number of products offered in the core routing market segment and our future revenues depend on enhancements to these products and their commercial success.***

Our future growth and revenue depend on the commercial success of our TSR, SSR and QSR products, which are the only products that we currently offer. We offer these products in the core routing market segment. We must continue to enhance the features and functionality of our products to meet customer requirements. In addition, the failure of these planned product enhancements to operate as expected could delay or prevent future sales of our products. If our target customers do not adopt, purchase and successfully deploy our products and our planned product enhancements, our revenues could decrease significantly.

***Our failure to increase our revenues would prevent us from achieving and maintaining profitability.***

We have incurred significant losses in each quarterly and annual period since inception and expect to continue to incur significant losses in the future. As of December 31, 2003, we had an accumulated deficit of \$365.6 million. We began recognizing revenues during the year ended December 31, 2000. We cannot be certain that our revenues will increase or that we will generate sufficient revenues to achieve profitability. We plan to continue product development and to selectively increase the number of our engineering, sales, marketing and administrative employees. These efforts will require significant expenditures, a substantial portion of which we will make long before any significant revenue related to these expenditures may be realized. In addition, our operating expenses are based largely on anticipated revenue trends and a significant portion of our expenses, such as personnel and real estate facilities costs, is fixed. As a result, we will need to generate significant revenues to achieve and maintain profitability. If we fail to achieve significant increases in our revenues, our operating losses could materially increase. We may never achieve profitability or generate positive cash flows from operations. If we do achieve profitability or positive cash flows from operations in any period, we may not be able to sustain or increase profitability or positive cash flows in the future.

***We rely on single or limited source suppliers for several key components. If we are unable to purchase these components on a timely basis or upon favorable terms, we will not be able to deliver our products to our customers within the timeframes required and we may experience order cancellations.***

We currently specify and purchase through our contract manufacturers several key components from single or limited sources. We have worked with LSI Logic for five years to develop several of our key proprietary application specific integrated circuits, or ASICs, which are custom designed integrated circuits built to perform a specific function more rapidly than a general purpose microprocessor. These proprietary ASICs are very complex and LSI Logic is currently our sole source supplier for them. We do not have a long-term, fixed-price or minimum volume of supply agreement with LSI Logic. Our ASICs generally require a lengthy lead-time. If required, we would likely be unable to develop an alternate source to LSI Logic in a timely manner, which could hurt our ability to deliver our products to our customers. We also purchase other critical components, including optical components, field programmable gate arrays and other ASICs, from sole or limited sources, and at times some of these components are subject to allocation. In addition we established a strategic relationship with Intel to supply certain network processors for use in our Multiservice Connect family of line cards and have also established other relationships for component supply. We do not have a long-term, fixed price or minimum volume of supply agreement with such vendors. Although we believe that there are alternative sources for many of these components, in the event of a disruption in supply, we may not be able to develop an alternate source in a timely manner or at favorable prices.

We typically specify and purchase through our contract manufacturers all of our components, including our ASICs, under purchase orders placed from time to time. We do not carry significant inventories of components and have no guaranteed supply arrangements with our vendors. If we are unable to purchase our critical components, or to provide for the production of our ASICs, at times and in volumes as our business requirements necessitate, we will not be able to manufacture and deliver our products to our customers in accordance with their volume and schedule requirements. If we are not able to satisfy the delivery requirements of our customers,

they may reduce any future orders or eliminate our status as a vendor. Our reputation also would likely be harmed and, given the limited number of customers in our target market, we may not be able to replace any lost business with new customers. In addition, even if we are able to obtain these critical components in sufficient volume and on schedules that permit us to satisfy our delivery requirements, we have little control over their cost. Accordingly, the lack of alternative sources for these components may force us to pay higher prices. If we are unable to obtain these components from our current suppliers or others at economical prices and favorable terms, our margins would be adversely impacted unless we could raise the prices of our products in a commensurate manner. The existing competitive conditions may not permit us to do so, in which case we may suffer increasing losses or reduced profits.

***We have been in business for a short period of time and your basis for evaluating us is limited.***

We were founded in November 1996, our TSR became commercially available during the fourth quarter of 1999, our SSR became commercially available during the fourth quarter of 2001, and our QSR became commercially available during the fourth quarter of 2002. Accordingly, we have limited meaningful historical financial data upon which to base projected revenues and planned operating expenses and upon which investors may evaluate our prospects and us. In addition, our limited operating history means that we have less insight into how technological and market trends may affect our business. The revenue and income potential of our business is unproven and the market that we are addressing is rapidly evolving. Our ability to sell our products depends on, among other things, the level of demand for intelligent high-speed routers. You should consider our business and prospects in light of the risks and difficulties frequently encountered by companies like ours in the early stages of development.

***The long and variable sales cycle for our products may cause revenues and operating results to vary unexpectedly from quarter to quarter, which could affect the market price of our common stock.***

A customer's decision to purchase our products involves a significant commitment of its resources and a lengthy evaluation, testing and product qualification process. As a result, our sales cycle is likely to be lengthy. Throughout the sales cycle, we spend considerable time and expense educating and providing information to prospective customers about the use and features of our products. Even after our customers make a decision to purchase, we believe that our customers will deploy our products slowly and deliberately. The timing of deployment can vary widely and depends on the skills of the customer, the size of the network deployment, the complexity of the customer's network environment and the degree of hardware and software configuration necessary. Customers with significant or complex networks usually expand their networks in large increments on a periodic basis. Accordingly, we expect to receive purchase orders on an irregular and unpredictable basis. Because of our limited operating history and the nature of our business, we cannot predict these sales and deployment cycles. These long sales cycles, as well as our expectation that customers will tend to sporadically place large orders with short lead times, may cause our revenues, cash flows and results of operations to vary significantly and unexpectedly from quarter to quarter and the trading price of our common stock could decrease materially.

***Our complex products may have errors or defects or may not interoperate within the networks of our customers, which could result in reduced demand for our products or costly litigation against us.***

Our products are complex and are designed to be deployed in large and complex networks with large volumes of traffic. Accordingly, our products can only be fully tested when completely deployed in these types of networks. Despite deployment and internal testing, our customers may discover errors or defects in the hardware or the software, or the product may not operate as expected even after it has been fully deployed. In addition, many of our customers will require that our products be designed to interface with their existing networks, each of which may have different specifications and utilize multiple protocol standards. Our customers' networks contain multiple generations of products that have been added over time as these networks have grown and evolved. Our products must interoperate with many of the products within these networks as



well as future products in order to meet the requirements of our customers. Because our products are critical to the networks of our customers, any significant interruption in their service as a result of defects in our product or the failure of our product to interoperate within our customers' networks could result in lost profits or damage to these customers. These problems could cause us to incur significant service and warranty costs, divert engineering personnel from product development efforts and significantly impair our ability to maintain existing customer relations and attract new customers. Although our contracts with our customers generally contain provisions designed to limit our exposure to potential product liability claims, such as disclaimers of warranties and limitations on liability for special, consequential and incidental damages, a court might not enforce a limitation on our liability, which could expose us to additional financial loss. In addition, a product liability claim, whether successful or not, would likely be time consuming and expensive to resolve and would divert management time and attention. Further, if we are unable to fix the errors or other problems that may be identified in full deployment, we would likely experience loss of or delay in revenues and loss of market share and our business and prospects would suffer.

*Our failure to compete effectively, particularly against Cisco Systems, Juniper Networks, and other established participants with greater financial and other resources than ours, could limit our ability to increase our market share.*

The competition in the network infrastructure equipment market is intense. This market historically has been dominated by Cisco Systems, although we also compete with other companies such as Juniper Networks. Our prospective customers may be reluctant to replace or expand their current infrastructure solutions, which may be supplied by one or more of these more established competitors, with our products. Further, many of our competitors have greater selling and marketing, technical, manufacturing, financial and other resources, more customers, greater market recognition and more established relationships and alliances in the industry. As a result, these competitors may be able to develop, enhance and expand their product offerings more quickly, adapt more swiftly to new or emerging technologies and changes in customer demands, devote greater resources to the marketing and sale of their offerings, pursue acquisitions and other opportunities more readily and adopt more aggressive pricing policies. In addition, established or emerging network equipment vendors may also focus on our target market, thereby further intensifying competition. In order to compete effectively with these competitors, we must demonstrate that our products are superior in meeting the needs of carriers and provide high levels of reliability, scalability and interoperability in a cost-effective manner.

In addition, we believe that understanding the infrastructure requirements of telecommunications carriers and other service providers, experience in working with these providers to develop new services for their customers and an ability to provide vendor-sponsored financing are important competitive factors in our market. We have limited experience in working with telecommunications carriers and other service providers. In addition, we do not currently have the ability to provide vendor-sponsored financing and this may influence the purchasing decision of prospective customers, which may decide to purchase products from one of our competitors that offers such financing.

If we are unable to compete successfully against our current and future competitors, we could experience order cancellations and price reductions. If this occurs, our revenues may not grow, our gross margins could decrease and we could experience additional material losses.

*We are likely to face difficulties in obtaining and retaining customers if we do not leverage our sales organization and our customer service and support operations with our third party distribution partners.*

Our products require a sophisticated sales effort targeted at a limited number of key individuals within our target end user customers' organizations. This effort requires specialized sales personnel and systems engineers. We continue to staff our direct sales force and plan to hire additional qualified sales personnel and systems engineers. The competition for these individuals is intense, and we might not be able to hire the type and number of sales personnel and systems engineers that we need to be successful. In addition, we believe that our future

success is dependent upon our ability to establish successful relationships with a variety of systems integrators and distribution partners. To date, we have entered into agreements with a number of regional systems integrators and distribution partners, including Nortel Networks, on a worldwide basis, and Huawei Technologies in Greater China. These systems integrators and distribution partners do not have any purchase commitments associated with our agreements with them and, generally, are not prohibited from selling products that compete with our products. We cannot be certain that such partners will devote adequate resources to marketing or selling our product or generate significant revenue in order for us to achieve and maintain profitability.

The complexity of our products and the difficulty of installing them also require highly trained customer service and support personnel. We will need to effectively utilize our customer service and support organization to support a broader base of customers. Hiring customer service and support personnel is very competitive in our industry because there are a limited number of people available with the necessary technical skills and understanding of our market. In addition, once we hire these personnel, they may require extensive training in our product. If we are unable to expand our customer service and support organization and train them rapidly, or engage, manage and retrain third-party service and support organizations, we may not be able to adequately support our products which could materially decrease our revenues.

***Our reliance on distribution partners to market and sell our products worldwide will cause our gross margins to decline.***

We believe that our future success is dependent upon establishing and maintaining successful relationships with distribution partners. We have entered into agreements with several distribution partners. Gross margin on distribution sales are lower than those on direct sales. Accordingly, to the extent that a higher percentage of our revenue is derived from distribution sales, it is expected that our gross margin percentage will decline from current levels. There can be no assurance that incremental revenue from distribution channels will be sufficient to offset the decline in gross margin dollars.

***We depend upon contract manufacturers and any disruption in these relationships may cause us to fail to meet the demands of our customers and damage our customer relationships.***

We do not have internal manufacturing capabilities. We rely on a small number of contract manufacturers to manufacture our products in accordance with our specifications and to fill orders on a timely basis. These contract manufacturers procure material on our behalf and provide comprehensive manufacturing services, including assembly, test and control. We have historically been dependent on two contract manufacturers, Sanmina-SCI Corporation and Celestica Corporation. We may not be able to effectively manage our relationships with these contract manufacturers and they may not meet our future requirements for timely delivery and quality or may not be on terms favorable to us. If we experience increased demand for our products, the challenges we face in managing our relationships with these manufacturers will be increased. Each of our contract manufacturers also builds products for other companies, and we cannot be certain that they will always have sufficient quantities of inventory available to fill orders placed by our customers, or that they will allocate their internal resources to fill these orders on a timely basis. Qualifying a new contract manufacturer and commencing volume production is expensive and time consuming and could result in a significant interruption in the supply of our product. If we are required or choose to change one or both of our contract manufacturers, we could experience a material loss in our revenue and significant damage to our customer relationships.

***If we fail to accurately predict our manufacturing requirements, we could incur additional costs or experience manufacturing delays.***

Our contract manufacturers are not obligated to supply products to us for any specific period, in any specific quantity or at any certain price, except as may be provided in a particular purchase order. We generally provide forecasts of our demand to these manufacturers up to 12 months prior to scheduled delivery of product to our customers. If we overestimate our requirements, we may purchase excess inventory, which would increase our

costs as we have to take additional charges for excess and obsolete inventory. If we underestimate our requirements, we may have an inadequate amount of inventory, which could result in delays in delivery to our customers and in recognition of revenue. In addition, the lead times for materials and components we order vary significantly and depend on factors such as the specific supplier, contract terms and demand for each component at a given time. We also may experience shortages of other components from time to time, which also could delay the manufacturing of our products and delay our recognition of revenue.

***The unpredictability of our quarterly results of operations may adversely affect the trading price of our common stock.***

Our quarterly operating results are likely to vary significantly in the future based on a number of factors related to our industry, the markets for our products and how we manage our business. We have little or no control over many of these factors and any of these factors could cause the price of our common stock to fluctuate significantly. In addition to the risks discussed elsewhere in this section, the following may also adversely affect the trading price of our common stock:

- fluctuations in the demand for high-speed routers;
- the timing and size of customer orders for our products or cancellations of orders;
- the timing of product acceptance by customers;
- the timing and level of research and development and prototype expenses;
- the distribution channels through which we sell our products; and
- general economic conditions, as well as conditions specific to the telecommunications industry.

We plan to selectively increase our operating expenses to fund greater levels of research and development, expand our sales and marketing operations, broaden our customer support capabilities, and develop new distribution channels in line with projected growth. Our operating expenses are largely based on anticipated organizational growth and revenue trends and a high percentage of our expenses are, and will continue to be, fixed in the short term. As a result, if revenue for a particular quarter is below our expectations for any of the reasons set forth above, or for any other reason, we may not be able to proportionately reduce operating expenses for that quarter. Accordingly, this revenue shortfall would have a disproportionate effect on our expected operating results and could result in material operating losses for that quarter, which could result in significant variations in our operating results from quarter to quarter.

Due to the foregoing factors, we believe that quarter-to-quarter comparisons of our operating results are not a good indication of our future performance. You should not rely on our results or growth for any single quarter as an indication of our future performance. It is likely that in some future quarters, our operating results may be below the expectations of public market analysts and investors. In this event, the price of our common stock may decline.

***If we do not respond effectively and on a timely basis to rapid technological changes, our products could become obsolete and we would probably be unable to attract new customers.***

The market for high-speed core router products has been and is likely to continue to be characterized by rapid technological change, evolving industry standards, and frequent new product introductions. The introduction of new products by competitors, market acceptance of products based on new or alternative technologies or the emergence of new industry standards could render our existing or future products obsolete. Accordingly, we may be required to make significant and ongoing investments in future periods in order to remain competitive. The development of new products or technologies is a complex and uncertain process that requires the accurate anticipation of technological and market trends. We may be unable to respond quickly or cost-effectively to these developments, and we may not be able to obtain the necessary funds to develop or acquire new technologies or products needed to compete. We also cannot assure you that any products we do develop will gain market acceptance.

In addition, in order to introduce products incorporating new technologies and new industry standards, we must be able to gain access to the latest technologies used by our customers, our suppliers and other network vendors. Any failure to gain access to the latest technologies could impair our ability to develop competitive products.

***Cisco's leadership position in our market could create technical challenges to our ability to sell our products.***

In developing our products, we have made, and will continue to make, assumptions about the standards that may be adopted by our customers and competitors. If the standards adopted are different from those that we have chosen to support, market acceptance of our products would likely be significantly reduced and our business will be seriously harmed. Because Cisco maintains a leadership position in selling products that currently comprise the infrastructure of the Internet, Cisco may have the ability to establish de facto standards within the industry. Any actions by Cisco that diminish compliance by our products with industry or de facto standards or the ability of our products to interoperate with other Internet-related products would be damaging to our reputation and our ability to generate revenue.

***Customer requirements are likely to evolve, and we will not retain customers or attract new customers if we do not anticipate and meet specific customer requirements.***

Our future success will also depend upon our ability to develop and manage key customer relationships in order to introduce a variety of new products and product enhancements that address the increasingly sophisticated needs of our customers. Our current and prospective customers may require product features and capabilities that our products do not have. We must effectively anticipate and adapt to customer requirements and offer products that meet those demands in a timely manner. Our failure to develop products that satisfy customer requirements would seriously harm our ability to achieve market acceptance for our products. In addition, we may experience design, manufacturing, marketing and other difficulties that could delay or prevent our development, introduction or marketing of new products and enhancements. Material delays in introducing new products may cause customers to forego purchases of our products and purchase those of our competitors, which could seriously harm our business. The introduction of new or enhanced products also requires that we manage the transition from older products in order to minimize disruption in customer ordering patterns and ensure that adequate supplies of new products can be delivered to meet anticipated customer demand. Our inability to effectively manage this transition would cause us to lose current and prospective customers.

***Our ability to develop, market and support products depends on retaining our management team and attracting and retaining highly qualified individuals in our industry.***

Our future success depends on the continued services of our management team, which has significant experience with the data communications, telecommunications and Internet infrastructure markets, as well as relationships with many of the communications service providers and business partners that we currently or may in the future rely on in implementing our business plan. The loss of the services of our management team or any key executive could have a significant detrimental effect on our ability to execute our business strategy.

Our future success also depends on our continuing ability to selectively identify, hire, train, assimilate and retain highly qualified engineering, sales, marketing, managerial and support personnel. The demand and competition for qualified personnel is high, and we have from time to time experienced, and we expect to continue to experience in the future, difficulty in hiring and retaining highly skilled employees with appropriate qualifications. In particular, we have experienced difficulty in hiring qualified ASIC, software, systems and test and customer support engineers. The loss of the services of any of our key employees, the inability to attract or retain qualified personnel in the future or delays in hiring required personnel, particularly engineers and sales personnel, could delay the development and introduction of and negatively impact our ability to sell our products.

***We face risks associated with our international expansion that could impair our ability to grow our revenues abroad.***

We intend to expand our presence in international markets. Our international sales are conducted through a direct sales force, sales agents, systems integrators, and distributors in Europe, Asia, and Latin America. In January 2004, we established a strategic relationship with Nortel Networks to market, sell and support our products on a worldwide basis. In 2003, we also established a strategic relationship with Huawei Technologies to resell our products in Greater China and also have established regional partners in Europe, Japan, Asia, and Latin America. Our international presence will require significant management attention and financial resources to successfully develop our direct and indirect international sales and support channels and our success will be dependent upon the commitment of resources by these distribution partners in the international markets.

We have limited experience in marketing and distributing our products internationally and we expect that we will need to develop versions of our product that comply with local standards. We may not be able to develop international market demand for our products. In addition, our international operations will expose us to a number of risks that we do not have to address in our domestic operations, including:

- greater difficulty in collecting accounts receivable and longer collection periods;
- greater difficulty in enforcing agreements;
- differences in technology standards;
- difficulties and costs of staffing and managing foreign operations;
- the impact of recessions in economies outside the United States;
- unexpected changes in regulatory requirements;
- certification requirements;
- foreign currency exchange rate fluctuations;
- reduced protection for intellectual property rights in some countries;
- potentially adverse tax consequences; and
- political and economic instability.

We expect that our international sales will be generally denominated in United States dollars. As a result, increases in the value of the United States dollar relative to foreign currencies would cause our products to become less competitive in international markets and could result in limited, if any, sales and profitability. To the extent that we denominate sales in foreign currencies or incur significant operating expenses denominated in local currencies, we will be exposed to increased risks of currency exchange rate fluctuations.

***We may experience difficulty in identifying, acquiring and integrating acquisition candidates.***

We may supplement our internal growth by acquiring complementary businesses, technologies or product lines. We may not be able to identify and acquire suitable candidates on reasonable terms. We compete for acquisition candidates with other companies that have substantially greater financial, management and other resources than we do. If we do complete an acquisition, integrating newly acquired organizations and products and services is likely to be expensive, time consuming and a strain on our managerial resources. Acquisitions, in particular, multiple acquisitions over a short period of time, involve a number of risks that may result in our failure to achieve the desired benefits of the transaction.

We may finance acquisitions by issuing shares of our common stock, which could dilute our existing stockholders. We may also use cash or incur additional debt to pay for these acquisitions. In addition, we may be required to expend substantial funds to develop acquired technologies. We may also be required to amortize significant intangible assets in connection with future acquisitions, which could adversely affect our operating results.

***Our intellectual property protection may be inadequate to protect our proprietary rights, and we may be subject to infringement claims that could subject us to significant liability and divert the time and attention of our management.***

We regard our products and technology as proprietary. We attempt to protect them through a combination of patent protection, copyrights, trademarks, trade secret laws, contractual restrictions on disclosure and other methods. These methods may not be sufficient to protect our proprietary rights. We presently have ten patents granted in the United States and over forty United States and foreign patent applications pending. We cannot be certain that patents will be granted based on these or any other applications, or that, even if issued, the patents will adequately protect our technology. We also generally enter into confidentiality agreements with our employees, consultants and customers, and generally control access to and distribution of our documentation and other proprietary information. Despite these precautions, it may be possible for a third party to copy or otherwise misappropriate and use our products or technology without authorization, particularly in foreign countries where the laws may not protect our proprietary rights to the same extent as do the laws of the United States, or to develop similar technology independently. We may need to resort to litigation in the future to enforce our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. This litigation could result in substantial costs and diversion of resources and could harm our business.

We also license technologies from third parties, some of which we license without indemnification from the licensor for infringement of third party intellectual property rights. We are continuing to develop and acquire additional intellectual property. Although we have not been involved in any litigation relating to our intellectual property, including intellectual property that we license from third parties, we expect that participants in our markets will be increasingly subject to infringement claims. Third parties may try to claim our products infringe their intellectual property. Any claim, whether meritorious or not, could be time consuming, result in costly litigation and/or require us to enter into royalty or licensing agreements. Although we carry general liability insurance, our insurance may not cover potential claims of this type or may not be adequate to indemnify us for all liability that may be imposed. In addition, any royalty or licensing agreements might not be available on terms acceptable to us or at all, in which case we would have to cease selling, incorporating or using the products that incorporate the challenged intellectual property and expend substantial amounts of resources to redesign our products. If we are forced to enter into unacceptable royalty or licensing agreements or to redesign our products, our business and prospects would suffer.

***We are uncertain of our ability to obtain additional financing for our future capital needs.***

We expect our current cash, cash equivalents and investments will meet our normal working capital and capital expenditure needs for at least the next twenty-four months. We may need to raise additional funding at that time or earlier if we decide to undertake more rapid expansion, including acquisitions of complementary products or technologies, or if we increase our marketing and/or research and development efforts in order to respond to competitive pressures. We cannot be certain that we will be able to obtain additional financing on favorable terms, if at all. We may obtain additional financing by issuing shares of our common stock, which could dilute our existing stockholders. If we cannot raise needed funds on acceptable terms, or at all, we may not be able to develop or enhance our products or respond appropriately to competitive pressures, which would seriously harm our business.

***The market price of our common stock may be materially adversely affected by market volatility.***

The price at which our common stock trades is highly volatile and fluctuates substantially. Given the limited volume of our product sales and our limited number of customers, the announcement of any significant customer developments, awards or losses or of any significant partnerships or acquisitions by us or our competitors could have a material adverse effect on our stock price. In addition, the stock market in general has, and technology companies in particular have, from time to time experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance or prospects of such companies.

In the past, securities class action litigation has often been brought against companies following periods of volatility in the market price of their securities. Those companies, like us, that are involved in rapidly changing technology markets are particularly subject to this risk. Securities class action lawsuits have been filed against us in the United States District Court for the Southern District of New York. The consolidated amended complaint generally alleges that our offering documents failed to disclose certain underwriting fees and commissions and underwriter tie-ins and other arrangements with certain customers of the underwriters that impacted the price of our common stock in the after-market. The plaintiffs are seeking unspecified damages. We believe that the claims in this case against us lack merit, and we have defended the litigation vigorously. In June 2003, we elected to participate in a proposed settlement with the plaintiffs in this litigation. Formal settlement documents for submission to the court are currently being drafted. If this proposed settlement is ultimately finalized and then submitted to and approved by the Court, it would result in a dismissal, with prejudice, of all claims in the litigation against us and against any of the other issuer defendants who elect to participate in the proposed settlement, together with the current or former officers and directors of participating issuers who were named as individual defendants.

We can provide no assurance as to the outcome of this securities litigation. Any conclusion of this litigation in a manner adverse to us could have a material adverse effect on our business, financial condition, results of operations and cash flows. In addition, the cost to us of defending the litigation, even if resolved in our favor, could be substantial. Such litigation could also substantially divert the attention of our management and our resources in general. Uncertainties resulting from the initiation and continuation of this litigation could harm our ability to compete in the marketplace. Because the price of our common stock has been, and may continue to be, volatile, we can provide no assurance that additional securities litigation will not be filed against us in the future.

***The market price of our common stock might decline due to future non-cash charges to earnings.***

We have recorded and begun to amortize non-cash charges to earnings as a result of options and restricted stock granted prior to the closing of our initial public offering to employees and consultants at prices deemed to be below fair market value on the dates of grant. Our future operating results will reflect the continued amortization of those charges over the vesting period of the options and restricted stock. These charges will negatively impact future operating results. It may not be possible to calculate the future impact with respect to consultant grants as the amount of these charges to earnings fluctuates with the price of our common stock and other factors. It is possible that some investors might consider this impact on operating results to be material, which could result in a decline in the price of our common stock. In addition, since 2000 we amortized against revenue, non-cash charges relating to the issuance of common stock warrants to a customer. In January 2004, in connection with three-year strategic OEM agreement with Nortel Networks we issued a warrant to purchase shares of Avici common stock. The fair value of the warrant was calculated to be approximately \$6.3 million using the Black-Scholes valuation model, and will be recorded as a reduction of revenue on a systematic basis over the economic life of the OEM agreement, which is expected to be three years.

***Our charter documents, Shareholder Rights Plan, and Delaware law could inhibit a takeover that some stockholders may consider favorable.***

There are provisions of Delaware law and our charter, by-laws, and Shareholder Rights Plan that could make it more difficult for a third party to acquire us, even if doing so would be beneficial to some of our stockholders by providing them the opportunity to sell their shares at a premium over the market price. If a change of control or change in management is delayed or prevented, the market price of our common stock could be affected.

## ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk related to changes in interest rates and foreign currency exchange rates. We do not use derivative financial instruments for speculative or trading purposes.

### Interest Rate Sensitivity

We maintain an investment portfolio consisting mainly of investment grade money market funds, corporate obligations, federal agency obligations, state and municipal bonds with a weighted-average maturity of less than one year. These held-to-maturity securities are subject to interest rate risk and will fall in value if market interest rates increase. If market interest rates were to increase immediately and uniformly by 10% from levels at December 31, 2003, the fair market value of these investments would decline by an immaterial amount. We have the ability to hold our fixed income investments until maturity. Therefore, we would not expect our operating results or cash flows to be affected to any significant degree by a sudden change in market interest rates on our securities portfolio. The following table provides information about our investment portfolio. For investment securities, the table presents principal cash flows and related weighted average interest rates by expected maturity dates.

	Carrying Value at December 31, 2003 (in thousands)		
	Maturing in		
	2004	2005	Grand total
Cash and Cash Equivalents . . . . .	\$22,374	\$ —	\$22,374
Weighted Average Interest Rate . . . . .	.94%	—	.94%
Marketable Securities . . . . .	\$41,240	\$32,316	\$73,556
Weighted Average Interest Rate . . . . .	1.93%	1.94%	1.94%
Total Portfolio . . . . .	\$63,614	\$32,316	\$95,930
Weighted Average Interest Rate . . . . .	1.58%	1.94%	1.70%

### Exchange Rate Sensitivity

We operate primarily in the United States, and all sales to date have been made in U.S. dollars. Accordingly, there has not been any material exposure to foreign currency rate fluctuations. If we expand our presence in international markets and consummate sales denominated in foreign currencies, our exposure to foreign currency rate fluctuations could be material in the future.

Avici has no off-balance sheet concentrations such as foreign exchange contracts, option contracts, or other foreign hedging arrangements.



## ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

### AVICI SYSTEMS INC. AND SUBSIDIARIES

#### INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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## REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders  
Avici Systems Inc.

We have audited the accompanying consolidated balance sheets of Avici Systems Inc. and subsidiaries as of December 31, 2003 and 2002 and the related consolidated statements of operations, stockholders' equity and cash flows for the years then ended. Our audits also included the financial statement schedule listed in the Index at Item 15(d). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits. The consolidated statements of operations, stockholders' equity and cash flows of Avici Systems Inc. for the year ended December 31, 2001 were audited by other auditors who have ceased operations and whose report dated January 22, 2002 expressed an unqualified opinion on those statements, before the revision adjustments described in Note 1(p).

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Avici Systems Inc. and subsidiaries as of December 31, 2003 and 2002, and the result of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

As discussed above, the consolidated statements of operations, stockholders' equity and cash flows of Avici Systems Inc. and subsidiaries for the year ended December 31, 2001 were audited by other auditors who have ceased operations. As described in Note 1(p), these financial statements have been revised. In 2002, the Company's Board of Directors approved a one-for-four reverse stock split distributed in the form of a stock dividend; separately reported service revenue and cost of revenue – service and reclassified certain expenses previously reported in selling and marketing expenses to cost of revenue – service. All historical common share and per common share amounts have been adjusted to reflect the reverse stock split except for share amounts presented in the consolidated statement of stockholders' equity, which reflects actual share amounts outstanding for each period presented. We audited the adjustments described in Note 1(p) that were applied to revise the number of shares and per share information and to reflect the presentation of revenue and cost of revenue in the 2001 consolidated financial statements. In our opinion, such adjustments are appropriate and have been properly applied. However, we were not engaged to audit, review, or apply any procedures to the 2001 consolidated financial statements of the Company other than with respect to such adjustments and, accordingly, we do not express an opinion or any other form of assurance on the 2001 consolidated financial statements taken as a whole.



Boston, Massachusetts  
January 26, 2004

THE FOLLOWING REPORT OF ARTHUR ANDERSEN LLP (ANDERSEN) IS A COPY OF THE LATEST SIGNED AND DATED REPORT ISSUED BY ANDERSEN ON JANUARY 22, 2002 AND SUCH REPORT HAS NOT BEEN REISSUED BY ANDERSEN. THE REPORT OF ANDERSEN IS INCLUDED IN THIS ANNUAL REPORT ON FORM 10-K PURSUANT TO RULE 2-02(E) OF REGULATION S-X. AFTER REASONABLE EFFORTS, AVICI HAS NOT BEEN ABLE TO OBTAIN A REPORT THAT MEETS THE TECHNICAL REQUIREMENTS OF 2-02(A) OF REGULATION S-X FROM ANDERSEN. ANDERSEN HAS NOT CONSENTED TO THE INCLUSION OF ITS REPORT IN THIS ANNUAL REPORT ON FORM 10-K. BECAUSE ANDERSEN HAS NOT CONSENTED TO THE INCLUSION OF ITS REPORT IN THIS ANNUAL REPORT, IT MAY BE DIFFICULT TO SEEK REMEDIES AGAINST ANDERSEN AND THE ABILITY TO RECOVER ANY POTENTIAL DAMAGES MAY BE LIMITED.

#### **REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS**

To the Stockholders of  
Avici Systems Inc.:

We have audited the accompanying consolidated balance sheets of Avici Systems Inc. (a Delaware corporation) and subsidiaries as of December 31, 2000 and 2001, and the related consolidated statements of operations, redeemable convertible preferred stock and stockholders' (deficit) equity and cash flows for each of the three years in the period ended December 31, 2001. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Avici Systems Inc. and subsidiaries as of December 31, 2000 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

ARTHUR ANDERSEN LLP

Boston, Massachusetts  
January 22, 2002

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**

	December 31,	
	2003	2002
	(thousands, except share and per share amounts)	
<b>ASSETS</b>		
Current Assets:		
Cash and cash equivalents .....	\$ 22,374	\$ 28,707
Marketable securities .....	41,240	54,125
Trade accounts receivable, net of allowance of \$245 in 2003 and \$175 in 2002 .....	6,620	2,593
Inventories .....	1,206	1,147
Prepaid expenses and other current assets .....	1,200	1,364
Total current assets .....	72,640	87,936
Property and equipment, at cost:		
Equipment under capital lease .....	12,195	12,195
Computer equipment .....	31,419	28,538
Laboratory and test equipment .....	34,140	31,562
Leasehold improvements .....	4,304	4,294
Furniture and fixtures .....	1,018	1,018
	83,076	77,607
Less—Accumulated depreciation and amortization .....	72,418	50,169
Net property and equipment .....	10,658	27,438
Other Assets:		
Marketable securities .....	32,316	42,257
Restricted cash .....	432	523
Total other assets .....	32,748	42,780
	<u>\$ 116,046</u>	<u>\$ 158,154</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current Liabilities:		
Current maturities of capital lease obligations .....	\$ 46	\$ 707
Accounts payable .....	5,539	4,484
Accrued payroll and payroll-related costs .....	3,869	2,890
Accrued restructuring costs .....	412	1,262
Accrued other .....	3,264	3,895
Deferred revenue .....	2,689	9,973
Total current liabilities .....	15,819	23,211
Capital lease obligations, less current maturities .....	—	46
Commitments and contingencies		
Stockholders' Equity:		
Preferred stock, \$0.01 par value—		
Authorized 5,000,000 shares		
Issued and outstanding – none .....	—	—
Common stock, \$0.0001 par value—		
Authorized—250,000,000 shares		
Issued and outstanding—12,715,941 shares at December 31, 2003 and 12,630,371 shares at December 31, 2002 .....	1	1
Additional paid-in capital .....	458,567	458,729
Common stock warrants .....	12,200	12,200
Subscriptions receivable .....	(2,500)	(2,500)
Treasury stock, at cost—482,308 shares at December 31, 2003 and 190,600 shares at December 31, 2002 .....	(2,108)	(681)
Deferred compensation .....	(315)	(4,265)
Accumulated deficit .....	(365,618)	(328,587)
Total stockholders' equity .....	100,227	134,897
	<u>\$ 116,046</u>	<u>\$ 158,154</u>

The accompanying notes are an integral part of these consolidated financial statements.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Years Ended December 31,		
	2003	2002	2001
	(thousands, except share and per share amounts)		
Revenue:			
Product .....	\$ 35,135	\$ 29,388	\$ 52,868
Service .....	4,281	3,756	3,775
Total gross revenue .....	39,416	33,144	56,643
Common stock warrant discount—Product .....	(2,451)	(3,266)	(3,267)
Net revenue .....	36,965	29,878	53,376
Cost of Revenue—Product (1) .....	11,606	15,133	50,223
Cost of Revenue—Service .....	3,053	2,272	2,721
Gross margin .....	22,306	12,473	432
Operating Expenses:			
Research and development (2) .....	46,483	55,844	61,527
Sales and marketing (2) .....	10,863	13,462	18,848
General and administrative (2) .....	6,077	7,178	9,538
Stock-based compensation .....	1,022	4,111	15,003
Restructuring charges .....	—	925	1,061
Total operating expenses .....	64,445	81,520	105,977
Loss from operations .....	(42,139)	(69,047)	(105,545)
Interest Income .....	2,181	4,201	10,698
Interest Expense .....	(30)	(161)	(645)
Other Income .....	2,957	227	—
Net loss .....	\$ (37,031)	\$ (64,780)	\$ (95,492)
Net Loss per Share:			
Basic and diluted .....	\$ (3.02)	\$ (5.20)	\$ (7.75)
Weighted Average Shares Used in Computing Net Loss per Share:			
Basic and diluted .....	12,248,606	12,456,221	12,314,577
(1) Includes inventory charge recorded in the third quarter of 2001 and related (credits) .....	\$ (1,910)	\$ (2,468)	\$ 17,165
(2) Excludes noncash, stock-based compensation, as follows:			
Research and development .....	\$ 668	\$ 2,507	\$ 9,698
Sales and marketing .....	181	762	3,895
General and administrative .....	173	842	1,410
	\$ 1,022	\$ 4,111	\$ 15,003

The accompanying notes are an integral part of these consolidated financial statements.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**

**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

	Common Stock		Additional Paid-in Capital	Common Stock Warrants (in thousands)	Subscriptions Receivable	Treasury Stock		Deferred Compensation and Other Consideration	Accumulated Deficit	Total Stockholders' Equity
	Number of Shares	\$0.0001 Par Value				Shares	Amount			
Balance, December 31, 2000	48,288	\$ 5	\$459,987	\$12,398	\$(2,500)	—	\$ —	\$(33,697)	\$ (168,315)	\$267,878
Amortization relating to warrants								3,267		3,267
Issuance of stock relating to the Employee Stock Purchase Plan	283		2,783							2,783
Issuance of restricted common stock to employees	544		1,228					(1,228)		—
Exercise of common stock options	908		1,790							1,790
Forfeiture of stock options due to employee terminations			(3,034)					1,483		(1,551)
Amortization of deferred compensation								15,003		15,003
Exercise of common stock warrants	266		207	(198)					(95,492)	9
Net loss										(95,492)
Balance, December 31, 2001	50,289	5	462,961	12,200	(2,500)	—	—	(15,172)	(263,807)	193,687
Amortization relating to warrants								3,266		3,266
Issuance of stock relating to Employee Stock Purchase Plan	172		275							275
Exercise of common stock options	52		38							38
Forfeiture of stock options due to employee terminations			(4,549)					3,530		(1,019)
Amortization of deferred compensation								4,111		4,111
Purchase of treasury stock, at cost						(409)	(681)			(681)
Forfeiture of restricted stock	(59)									—
One-for-four reverse stock split	(37,824)	(4)	4			218				—
Net loss									(64,780)	(64,780)
Balance, December 31, 2002	12,630	1	458,729	12,200	(2,500)	(191)	(681)	(4,265)	(328,587)	134,897
Amortization relating to warrants								2,451		2,451
Issuance of stock relating to Employee Stock Purchase Plan	51		171							171
Exercise of common stock options	46		166							166
Forfeiture of stock options due to employee terminations			(499)					477		(22)
Amortization of deferred compensation								1,022		1,022
Purchase of treasury stock, at cost						(291)	(1,427)			(1,427)
Forfeiture of restricted stock	(11)									—
Net loss									(37,031)	(37,031)
Balance, December 31, 2003	12,716	\$ 1	\$458,567	\$12,200	\$(2,500)	(482)	\$(2,108)	\$ (315)	\$(365,618)	\$100,227

The accompanying notes are an integral part of these consolidated financial statements.

# AVICI SYSTEMS INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,		
	2003	2002	2001
	(in thousands)		
Cash flows from operating activities:			
Net loss .....	\$(37,031)	\$ (64,780)	\$ (95,492)
Adjustments to reconcile net loss to net cash used in operating activities—			
Depreciation and amortization .....	22,249	24,080	18,061
(Gain) loss on disposal of property and equipment .....	—	(193)	1,330
Compensation expense associated with issuance of stock options to employees and consultants .....	1,022	3,092	13,452
Compensation expense associated with issuance of common stock warrants .....	2,451	3,266	3,267
Changes in current assets and liabilities—			
Trade accounts receivable .....	(4,027)	238	3,510
Inventories .....	(59)	6,962	6,869
Prepaid expenses and other current assets .....	164	1,270	(868)
Restricted cash .....	91	11	(243)
Accounts payable .....	1,055	(1,417)	(10,609)
Accrued payroll and payroll related .....	979	(61)	(387)
Accrued restructuring costs .....	(850)	690	572
Accrued other .....	(653)	(1,946)	4,839
Deferred revenue .....	(7,284)	1,719	2,223
Net cash used in operating activities .....	<u>(21,893)</u>	<u>(27,069)</u>	<u>(53,476)</u>
Cash flows from investing activities:			
Proceeds from the maturity of marketable securities .....	88,320	208,978	226,176
Purchases of marketable securities .....	(65,494)	(206,302)	(196,758)
Purchases of property and equipment .....	(5,469)	(9,963)	(37,747)
Proceeds from sale of property and equipment .....	—	366	409
Net cash provided by (used in) investing activities .....	<u>17,357</u>	<u>(6,921)</u>	<u>(7,920)</u>
Cash flows from financing activities:			
Payments on capital lease obligations .....	(707)	(2,318)	(4,259)
Repurchase of common stock .....	(1,427)	(681)	—
Proceeds from sales of common stock, net of issuance costs .....	171	313	2,783
Proceeds from exercise of stock options and warrants .....	166	—	1,800
Net cash (used in) provided by financing activities .....	<u>(1,797)</u>	<u>(2,686)</u>	<u>324</u>
Net decrease in cash and cash equivalents .....	<u>(6,333)</u>	<u>(36,676)</u>	<u>(61,072)</u>
Cash and cash equivalents, beginning of year .....	<u>28,707</u>	<u>65,383</u>	<u>126,455</u>
Cash and cash equivalents, end of year .....	<u>\$ 22,374</u>	<u>\$ 28,707</u>	<u>\$ 65,383</u>
Supplemental disclosure of cash flow information:			
Cash paid during the year for interest .....	<u>\$ 30</u>	<u>\$ 161</u>	<u>\$ 466</u>

The accompanying notes are an integral part of these consolidated financial statements.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**December 31, 2003**

**(all tabular amounts in thousands except share and per share data)**

**(1) OPERATIONS AND SIGNIFICANT ACCOUNTING POLICIES**

Avici Systems Inc. and subsidiaries (Avici or the Company) was incorporated in the State of Delaware on November 12, 1996 and was organized to design and develop high-speed data networking equipment for the carrier market. Avici's Terabit Switch Router product (TSR), Stackable Switch Router (SSR) and Quarter-rack Switch Router (QSR) are designed to cost-effectively provide high-speed/high-volume capacity, carrier-class reliability and in-service scalability, or the ability to incrementally add capacity to the network without disrupting network performance.

Avici is devoting significant efforts toward product research and development. As such, it is subject to a number of risks and challenges similar to other companies in a similar stage of development. These risks include, but are not limited to, dependence on few customers, dependence on key individuals, dependence on contract manufacturers and key suppliers of integral components, the need to develop and market commercially usable products, the ability to obtain adequate financing to support growth and product development and competition from substitute products and larger companies with greater financial, technical, management and marketing resources.

Avici incurred net losses of approximately \$37.0 million, \$64.8 million, and \$95.5 million, for the years ended December 31, 2003, 2002 and 2001, respectively. At December 31, 2003, Avici had an accumulated deficit of approximately \$365.6 million and has funded those losses through the sale of redeemable convertible preferred stock, the proceeds from the sale of its common stock and the issuance of certain long-term obligations. Avici is dependent on the proceeds of these financings to meet its future working capital and research and development needs.

The accompanying consolidated financial statements reflect the application of certain significant accounting policies as described in this note and elsewhere in these notes to consolidated financial statements.

**(a) Revenue Recognition**

Avici recognizes revenue from product sales upon shipment, provided that a purchase order has been received or a contract has been executed, there are no uncertainties regarding customer acceptance, the sales price is fixed or determinable and collectibility is deemed probable. If uncertainties regarding customer acceptance exist, Avici recognizes revenue when those uncertainties are resolved. For arrangements that include the delivery of multiple elements, revenue is allocated to the various elements based on vendor-specific objective evidence of fair value (VSOE). Avici uses the residual method when VSOE does not exist for one of the delivered elements in an arrangement. Revenue from support and maintenance contracts is recognized ratably over the period of the related agreements. Revenue from installation and other services is recognized as the work is performed. Amounts collected or billed prior to satisfying the above revenue recognition criteria are recorded as deferred revenue.

**(b) Cost of Revenue – Service**

Cost of Revenue – Service includes internal costs associated with providing customer support and maintenance services. As personnel responsible for providing such services are also engaged in other activities such as sales and marketing and product development, Avici aggregates certain costs, including payroll, fringe,



**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**  
**(all tabular amounts in thousands except share and per share data)**

overhead and depreciation, and allocates a portion of those costs to Cost of Revenue – Service. Such allocation is based on an estimation of time devoted towards supporting the service programs, which Avici believes to be reasonable.

**(c) Cash and Cash Equivalents and Marketable Securities**

Avici follows the provisions of Statement of Financial Accounting Standards (SFAS) No. 115, *Accounting for Certain Investments in Debt and Equity Securities*. Avici has classified its cash equivalents and investments as held-to-maturity and recorded them at amortized cost, which approximates market value. Avici considers all highly liquid investments with original maturities of three months or less at the date of acquisition to be cash equivalents. Cash and cash equivalents include money markets, certificates of deposit and commercial paper. As of December 31, 2003, investments consisted of the following:

<u>Held to Maturity Securities</u>	<u>Remaining Maturities</u>	<u>Amortized Cost</u>	<u>Fair Market Value</u>	<u>Unrealized Gain (Loss)</u>
Commercial Paper .....	Within 1 year	\$ 3,086	\$ 3,086	\$ —
U.S. Government Obligations .....	1 – 2 years	26,616	26,659	43
U.S. Government Obligations .....	Within 1 year	18,103	18,108	5
Corporate Bonds .....	1 – 2 years	5,700	5,551	(149)
Corporate Bonds .....	Within 1 year	20,051	19,545	(506)
Total marketable securities .....		73,556	72,949	(607)
Cash and cash equivalents .....		22,374	22,372	(2)
Total cash, cash equivalents and marketable securities .....		<u>\$95,930</u>	<u>\$95,321</u>	<u>\$(609)</u>

**(d) Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions, including certain allocations of costs, that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

**(e) Inventories**

Inventories are stated at the lower of cost (first-in, first-out) or market and consist of the following:

	<u>December 31,</u>	
	<u>2003</u>	<u>2002</u>
Finished goods .....	\$1,055	\$ 871
Raw materials .....	151	276
	<u>\$1,206</u>	<u>\$1,147</u>

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**

**(all tabular amounts in thousands except share and per share data)**

We regularly review inventory quantities on hand and inventory commitments with suppliers and record a provision for excess and obsolete inventory based primarily on our estimated forecast of product demand for up to the next twelve months. Purchase commitments accrued at December 31, 2003 and 2002 were \$0.5 million and \$1.0 million, respectively.

**(f) Depreciation, Amortization and Impairment**

Property and equipment are stated at cost, net of accumulated depreciation and amortization. Expenditures for maintenance and repairs are charged to expense as incurred, whereas major betterments are capitalized as additions to property and equipment. Avici provides for depreciation and amortization on the straight-line basis and charges to operations amounts that allocate the cost of the assets over their estimated useful lives as follows:

<u>Asset Classification</u>	<u>Estimated Useful Life</u>
Equipment under capital lease .....	Life of lease
Computer equipment .....	3 years
Laboratory and test equipment .....	2-3 years
Leasehold improvements .....	3 years
Furniture and fixtures .....	5 years

Accumulated amortization expense and amortization expense on equipment under capital leases is included in accumulated depreciation and depreciation expense, respectively. Depreciation and amortization expense was \$22.2 million, \$24.1 million and \$18.1 million for the years ended December 31, 2003, 2002 and 2001, respectively.

In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, Avici reviews property, plant, and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of such an asset may not be recoverable. Except for certain restructuring activities undertaken during fiscal 2001 and 2002 as disclosed in Note 2, no revision to the estimated useful life or recorded amount of property and equipment was required.

**(g) Concentrations of Credit and Other Risks**

SFAS No. 105, *Disclosure of Information about Financial Instruments with Off-Balance Sheet Risk and Financial Instruments with Concentrations of Credit Risk*, requires disclosure of any significant off-balance sheet and credit risk concentrations. Avici's principal credit risk relates to its cash, cash equivalents, investments and accounts receivable. Avici invests its excess cash, cash equivalents and investments primarily in deposits with commercial banks and high-quality corporate securities. One customer accounted for 81% of net revenue in 2003, two customers accounted for 53% and 42% of net revenue in 2002 and three customers accounted for 47%, 23%, and 13% of net revenue in 2001. Two customers accounted for 76% and 21% of trade receivable at December 31, 2003 and two customers accounted for 81% and 12% of trade accounts receivable at December 31, 2002.

Avici has no off-balance sheet concentrations such as foreign exchange contracts, option contracts, or other foreign hedging arrangements.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**  
**(all tabular amounts in thousands except share and per share data)**

Certain key components used in Avici's products are procured from single or limited source suppliers, and Avici relies on single or limited contract manufacturers for the assembly of its products. The failure of a supplier, including a contract manufacturer, to deliver on schedule could delay or interrupt Avici's delivery of products and thereby adversely affect Avici's revenues and operating results.

**(h) Fair Value of Financial Instruments**

Avici's financial instruments mainly consist of cash and cash equivalents, investments, trade accounts receivable, subscriptions receivable and accounts payable. The carrying amounts of these instruments approximate their fair value based on their short-term maturity or quoted market prices.

**(i) Research and Development and Software-Development Costs**

The costs of the development of hardware products and enhancements to existing hardware products are expensed as incurred. Avici accounts for its software development costs in accordance with SFAS No. 86, *Accounting for the Costs of Computer Software to Be Sold, Leased or Otherwise Marketed*. Accordingly, the costs for the development of new software that are included in the hardware products and substantial enhancements to such existing software are expensed as incurred until technological feasibility has been established, at which time any additional costs would be capitalized. Avici determines technological feasibility has been established at the time at which a working model of the software has been completed. Because Avici believes its current process for developing software is essentially completed concurrently with the establishment of technological feasibility, no costs have been capitalized to date.

**(j) Net Loss per Share and Pro Forma Net Loss per Share**

Basic and diluted net loss per share are presented in conformity with SFAS No. 128, *Earnings per Share*, for all periods presented. In accordance with SFAS No. 128, basic and diluted net loss per common share was determined by dividing net loss available for common stockholders by the weighted average common shares outstanding during the period, less shares subject to repurchase. Basic and diluted net loss per share are the same because all outstanding common stock options have been excluded, as they are considered antidilutive. Options to purchase a total of 3,301,912, 2,930,634 and 1,351,803 common shares have been excluded from the computations of diluted weighted average shares outstanding for the years ended December 31, 2003, 2002 and 2001, respectively. In addition, 52 shares, 60,683 shares and 135,933 shares of unvested restricted common stock have been excluded from the computation of diluted weighted average shares outstanding for the years ended December 31, 2003, 2002 and 2001, respectively.

**(k) Comprehensive Income (Loss)**

SFAS No. 130, *Reporting Comprehensive Income*, requires disclosure of all components of comprehensive income on an annual and interim basis. Comprehensive income is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances involving nonowner sources. During all periods presented, Avici did not have any items of comprehensive income (loss) other than its reported net loss.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**  
(all tabular amounts in thousands except share and per share data)

**(l) Stock-Based Compensation**

SFAS No. 123 requires the measurement of the fair value of stock options or warrants to be included in the consolidated statement of operations or disclosed in the notes to the consolidated financial statements. Avici has determined that it will continue to account for stock-based compensation for employees under APB Opinion No. 25 and has elected the disclosure-only alternative under SFAS No. 123, which requires disclosure of the pro forma effects on earnings as if the fair-value-based method of accounting under SFAS No. 123 had been adopted, as well as certain other information.

Avici has computed the pro forma disclosures required under SFAS No. 123 for stock option grants during 2003, 2002 and 2001, using the Black-Scholes option pricing model prescribed by SFAS No. 123, using the following assumptions:

	<u>2003</u>	<u>2002</u>	<u>2001</u>
Risk-free interest rate .....	1.91-2.87%	2.61-4.40%	3.54-4.98%
Expected dividend yield .....	—	—	—
Expected lives .....	4.0 years	4.0 years	4.0 years
Expected volatility .....	75%	88%	100%
Weighted average fair value per share of options granted .....	\$ 2.39	\$ 4.91	\$ 21.76

If compensation cost had been determined for stock option grants to employees based on the provisions of SFAS No. 123, Avici's net loss and net loss per share for the years ended December 31, 2003, 2002 and 2001 would have increased to the pro forma amounts indicated below:

	<u>2003</u>	<u>2002</u>	<u>2001</u>
Net loss, as reported .....	\$(37,031)	\$(64,780)	\$ (95,492)
Deduct: Stock-based employee compensation expense included in reported net loss .....	1,022	3,091	13,458
Add: Stock-based employee compensation expense determined under fair value based method for all awards .....	(4,961)	(9,828)	(18,756)
Pro forma net loss .....	<u>\$(40,970)</u>	<u>\$(71,517)</u>	<u>\$(100,790)</u>
Basic and diluted net loss per share: .....			
As reported .....	\$ (3.02)	\$ (5.20)	\$ (7.75)
Pro forma .....	(3.34)	(5.74)	(8.18)

The Black-Scholes option pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option pricing models require the input of highly subjective assumptions, including expected stock price volatility. Because Avici's employee stock option grants have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock and option grants.

**(m) Disclosures about Segments of an Enterprise**

SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*, establishes standards for reporting information regarding operating segments and establishes standards for related disclosures about products and services and geographic areas. Operating segments are identified as components of an enterprise

## AVICI SYSTEMS INC. AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

December 31, 2003

(all tabular amounts in thousands except share and per share data)

about which separate discrete financial information is available for evaluation by the chief operating decision maker, or decision making group, in making decisions regarding resource allocation and assessing performance. Avici has determined that it conducts its operations in one segment. For the year ended December 31, 2003, the geographic distribution of revenue was as follows: United States: 95%, Asia: 5%. For the year ended December 31, 2002, the geographic distribution of revenue was as follows: United States: 97%, Asia: 3%. For the year ended December 31, 2001, the geographic distribution of revenue was as follows: United States: 97%, Asia: 2%, Europe: 1%.

#### (n) Principles of Consolidation

The consolidated financial statements include the accounts of Avici Systems Inc. and all of its wholly owned subsidiaries after elimination of intercompany accounts and transactions.

#### (o) Recent Accounting Pronouncements

In November 2002, the Emerging Issues Task Force reached a consensus on Issue No. 00-21 (EITF 00-21), "Revenue Arrangements with Multiple Deliverables." EITF 00-21 provides guidance on accounting for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. Avici adopted EITF 00-21 at the beginning of the third quarter of 2003 and it did not have a material impact on Avici's consolidated financial position or results of operations.

In January 2003, the Financial Accounting Standards Board issued Interpretation No. 46 (FIN No. 46), "Consolidation of Variable Interest Entities," which is an interpretation of Accounting Research Bulletin No. 51, "Consolidated Financial Statements," and addresses consolidation by business enterprises of variable interest entities. FIN No. 46 requires existing unconsolidated variable interest entities to be consolidated by their primary beneficiaries if the entities do not effectively disperse risks among parties involved. Variable interest entities that effectively disperse risks will not be consolidated unless a single party holds an interest or combination of interests that effectively recombines risks that were previously dispersed. FIN No. 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. It applies in the first fiscal year or interim period beginning after March 15, 2004, to variable interest entities in which an enterprise holds a variable interest that it acquired before February 1, 2003. FIN No. 46 applies to public enterprises as of the beginning of the applicable interim or annual period. In 2003 Avici did not create a variable interest entity or obtain an interest in a variable interest entity. Avici does not expect the provisions of FIN No. 46 to have a material impact on Avici's consolidated financial position or results of operations.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity," which addresses the standards for classifying and measuring certain financial instruments with characteristics of both liabilities and equity. SFAS 150 shall be effective for financial instruments entered into or modified after May 31, 2003 and otherwise shall be effective at the beginning of the first interim period beginning after June 15, 2003. Avici adopted the applicable provisions of this statement in the third quarter of 2003 and it did not have a material impact on Avici's consolidated financial position or results of operations.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**  
**(all tabular amounts in thousands except share and per share data)**

**(p) Reclassifications**

During 2002, Avici's annual service revenue exceeded the 10% of total revenue threshold and accordingly Avici began to separately report Service Gross Revenue from Product Gross Revenue and to separately report Cost of Revenue—Service from Cost of Revenue—Product. In addition, in 2002 Avici refined its methodology of allocating certain Sales and Marketing Expenses as Costs of Revenue—Service. Prior period amounts have been reclassified to conform with the current period presentation. The reclassifications had no effect on total revenue, operating loss, net loss, or net loss per share. The following is a summary of such reclassifications:

	<u>Year Ended December 31, 2001</u>
Gross Revenue:	
As previously reported .....	\$56,643
Amounts reclassified to Gross Revenue—Service .....	<u>(3,775)</u>
Gross Revenue—Product—revised .....	<u>\$52,868</u>
Gross Revenue—Service:	
As previously reported .....	\$ —
Amounts reclassified from Gross Revenue .....	<u>3,775</u>
Gross Revenue—Service—revised .....	<u>\$ 3,775</u>
	<u>Year Ended December 31, 2001</u>
Cost of Revenue:	
As previously reported .....	\$51,973
Amounts reclassified to Cost of Revenue—Service .....	<u>(1,750)</u>
Cost of Revenue—Product—revised .....	<u>\$50,223</u>
Cost of Revenue—Service:	
As previously reported .....	\$ —
Amounts reclassified from Cost of Revenue .....	1,750
Amounts reclassified from Sales and Marketing Expense .....	<u>971</u>
Cost of Revenue—Service—revised .....	<u>\$ 2,721</u>
Sales and Marketing Expense:	
As previously reported .....	\$19,819
Amounts reclassified to Cost of Revenue—Service .....	<u>(971)</u>
Sales and Marketing Expense—revised .....	<u>\$18,848</u>

Certain other reclassifications have been made to prior period balances in order to conform to the current presentation.

**(2) RESTRUCTURING AND OTHER CHARGES**

Avici implemented restructuring programs during the third and fourth quarters of 2001 and during the third quarter of 2002, designed to decrease operating expenses and align resources with future growth opportunities. As a result of these programs Avici recorded a net charge of \$1.1 million in 2001 and \$0.9 million in 2002.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**  
**(all tabular amounts in thousands except share and per share data)**

The 2001 restructuring programs included workforce reductions totaling 95 employees, or approximately 24% of the then current workforce. As a result of the 2002 restructuring program, Avici reduced workforce by an additional 75 employees, or 24% of the then current workforce. The affected employees received severance and other benefits pursuant to a benefits program. Avici recorded charges totaling \$0.9 million for termination benefits in 2001, and an additional \$0.9 million for termination benefits in 2002. These charges were before the reversal of non-cash stock based compensation expense associated with forfeited options of \$1.5 million and \$1.0 million for the 2001 and 2002 restructuring programs, respectively. Termination benefits relating to the 2001 workforce reductions were fully paid in 2002. Termination benefits relating to the 2002 workforce reductions were fully paid in 2003. In 2003, \$0.1 million of termination benefits relating to the 2002 workforce reductions were paid.

In addition to the workforce reductions, Avici recorded a charge of \$1.7 million in 2001, and \$1.1 million in 2002, to dispose redundant assets and to accrue lease payments associated with excess facilities. In 2003, Avici paid \$0.1 million and \$0.6 million in lease payments relating to the 2001 and 2002 restructuring programs, respectively. Restructuring reserves for future lease payments was \$0.4 million at December 31, 2003.

Additionally, in the third quarter of 2001 Avici recorded a charge of \$17.2 million as an element of product cost of revenue to reflect a write down of inventories and inventory commitments for long lead-time items that were considered to be in excess of the then foreseeable demand. The charge included commitments to suppliers including ASICs, module components, and TSR bay components totaling approximately \$9.6 million and inventory components and finished goods on hand relating to the TSR product, totaling approximately \$7.6 million which were identified as in excess of the then forecasted demand for the next 12 months. Since the end of the third quarter of fiscal 2001, Avici has paid approximately \$9.4 million to settle inventory commitments with suppliers, and has discarded approximately \$6.3 million of the excess inventory on hand.

In 2003 and 2002, Avici utilized inventory previously reserved of \$3.6 million and \$2.5 million, respectively, primarily as a result of products sold in excess of Avici's expectations. The utilization relating to the \$17.2 million of inventory deemed during the third quarter of 2001 to be in excess of foreseeable requirements was \$1.9 million and \$2.5 million in 2003 and 2002, respectively. In the event Avici is able to utilize inventory on hand that was previously reserved, Avici will continue to recognize credits to product cost of revenue, however, Avici does not expect significant utilization of such reserved inventory to result in credits in the future.

**(3) STOCKHOLDERS' EQUITY**

**(a) Share Repurchase Program**

During the third quarter of 2002, the Board of Directors authorized a share repurchase program, in effect for a one year period, to acquire up to 1.5 million shares of Avici's common stock in the open market at times and prices considered appropriate by Avici. The share buyback program was initiated during the fourth quarter of 2002, and Avici purchased 291,708 shares at an aggregate cost of approximately \$1.4 million in 2003. During the program Avici purchased 482,308 shares at an aggregate cost of approximately \$2.1 million. The share repurchase program terminated during the third quarter of 2003.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**

**(all tabular amounts in thousands except share and per share data)**

**(b) Common Stock Warrants**

On August 2, 2000, Avici issued to a potential customer a warrant to purchase 25,000 shares of Avici's common stock at \$124.00 per share. The warrant is nonforfeitable, fully exercisable and has a term of five years from the date of issuance. The potential customer had not purchased any product from Avici nor was it obligated to purchase any product or service from Avici as a condition to granting of the warrant. The fair value of the warrant was calculated to be \$2.4 million using the Black-Scholes valuation model, and was amortized as common stock warrant expense in 2000.

In December 2000, in connection with the execution of a nonexclusive systems and services agreement (the "2000 Agreement"), Avici issued a warrant to a customer to purchase 212,500 shares of Avici's common stock at a per-share exercise price of \$110.92. The 2000 Agreement between Avici and the customer provides the customer with the ability, but not the obligation, to purchase equipment and services from Avici. The warrant is nonforfeitable, fully exercisable and has a term of five years from the date of issuance. The fair value of the warrant was calculated to be \$9.8 million using the Black-Scholes valuation model, and was deferred as a reduction to equity and was amortized as an offset to gross revenue on a straight-line basis over the three-year term of the 2000 Agreement. The fair value of the warrant was fully amortized at December 31, 2003.

In January 2004, in connection with three-year strategic OEM agreement (the "2004 Agreement"), Avici issued a warrant to a strategic partner to purchase 800,000 shares of Avici common stock at an exercise price of \$8.03 per share. The 2004 Agreement between Avici and the partner provides the partner with the ability, but not the obligation, to purchase equipment and services from Avici for its own use or for resale. The warrant is nonforfeitable and has a term of approximately seven years from the date of issuance and is exercisable after seven years. The right to exercise the warrant may be accelerated if the strategic partner achieves certain performance milestones. The fair value of the warrant was calculated to be approximately \$6.3 million using the Black-Scholes valuation model, and will be recorded as a reduction of revenue on a systematic basis over the economic life of the 2004 Agreement, which is expected to be three years.

**(c) Equity-Based Compensation Plans**

Avici currently has two primary stock incentive plans: 1997 Stock Incentive Plan (the "1997 Plan") and the 2000 Stock Option and Incentive Plan (the "2000 Plan"). A total of 3,839,869 shares of common stock have been reserved for issuance under these plans. The 2000 Plan is the only one of the two primary plans under which new awards are currently being issued. The maximum number of shares with respect to which awards may be granted to any employee under the 2000 Plan shall not exceed 500,000 shares of common stock during any calendar year. In addition, any shares not yet issued under the 1997 Plan on or before the date of Avici's initial public offering or shares subject to options outstanding on the date of Avici's initial public offering which are forfeited or terminated are available for issuance under the 2000 Plan.

The Plans provide for the grant of stock-based awards to Avici's employees, officers, directors, consultants and advisors. Under the Plans, Avici may grant options that are intended to qualify as incentive stock options within the meaning of Section 422 of the Internal Revenue Code, options not intended to qualify as incentive stock options, restricted stock and other stock-based awards. Incentive stock options may be granted only to employees of Avici.

As of December 31, 2003, 612,955 shares were available for future grant under the Plans.



**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

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(all tabular amounts in thousands except share and per share data)

**(d) 2000 Nonemployee Director Stock Option Plan**

In May 2000, the Board of Directors approved the 2000 Nonemployee Director Stock Option Plan (the "Director Plan"). A total of 100,000 shares of common stock have been authorized for issuance under the Director Plan. On January 1 of each year, commencing with January 1, 2001, the aggregate number of shares available for grant under the plan will automatically increase by the number of shares necessary to cause the total number of shares then available for grant to be 100,000 shares.

The Director Plan is administered by the compensation committee. Under the Director Plan, each nonemployee director who becomes a member of the Board of Directors will be automatically granted on the date first elected to the Board of Directors an option to purchase 8,750 shares of common stock, which will vest in four equal installments over four years. In addition, provided that the director continues to serve as a member of the Board of Directors, each nonemployee director will be automatically granted on the date of each annual meeting of stockholders following his or her initial option grant date an option to purchase 3,750 shares of common stock, 1,250 shares of which will vest immediately and 2,500 shares of which will vest in four equal installments over four years. Avici granted a total of 50,000 options to its nonemployee directors at the time of Avici's initial public offering. Such options vest in four equal installments over four years.

As of December 31, 2003, 97,500 shares were available for future grant under the Director Plan.

**(e) Option Exchange Program**

On October 1, 2001, Avici announced an offer to exchange outstanding employee stock options having an exercise price of more than \$20.00 per share. In order to participate in the program, employees were required to tender for exchange all options granted on or after April 1, 2001. In exchange for eligible options, employees generally received a number of shares of restricted stock and a commitment for new grants of non-qualified stock options (collectively, the "New Grant") in accordance with the following exchange ratio:

<u>Exercise Price of Options Tendered</u>	<u>Exchange Ratio</u>
\$20.00 or less .....	None
\$20.01-\$20.79 .....	1.2 for 1
\$20.80-\$40.00 .....	1 for 1
\$40.01-\$160.00 .....	.75 for 1
\$160.01-\$320.00 .....	.5 for 1
\$320.01 or more .....	.2 for 1

One-tenth ( $\frac{1}{10}$ ) of the New Grant consisted of restricted stock (rounded up to the nearest whole share) and nine-tenths ( $\frac{9}{10}$ ) of the New Grant consisted of new options exercisable for shares of common stock (rounded down to the nearest whole share), subject to adjustments for any stock splits, stock dividends and similar events. In order to address potential adverse tax consequences for non-U.S. employees, those employees were allowed to forego the restricted stock grants and receive all stock options.

A total of 1,638,438 options were accepted for exchange under the offer and, accordingly, were canceled in October 2001. A total of 135,933 shares of restricted stock were issued on October 30, 2001, and Avici recorded deferred compensation of \$1,228,000 related to these grants during the fourth quarter of fiscal 2001. The deferred compensation costs are being amortized ratably over the vesting periods of the restricted stock, generally over a

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

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two-year period, with 50% of the shares vesting one year from the date of grant, and 12.5% of the shares vesting in each three-month period thereafter. Avici granted new options to purchase a total of 1,126,586 shares with an exercise price of \$7.68 on May 1, 2002. The new options have a term of 10 years and vested either 12.5% or 25% on date of grant, depending on the length of employment, and 2.0833% per month thereafter.

**(f) Option Grants**

Option activity under all stock option plans is as follows:

	Number of Shares	Range of Exercise Prices	Weighted Average Exercise Price
Outstanding, December 31, 2000 .....	2,671,128	\$0.40-532.00	\$63.16
Granted .....	1,208,144	5.48-135.75	30.52
Exercised .....	(227,117)	0.04-48.00	8.48
Forfeited .....	(2,300,352)	0.40-532.00	77.32
Outstanding, December 31, 2001 .....	1,351,803	0.40-353.52	26.12
Granted .....	2,151,317	2.44-12.00	7.56
Exercised .....	(10,177)	0.40-8.15	2.83
Forfeited—Cancelled .....	(562,309)	0.40-353.50	23.67
Outstanding, December 31, 2002 .....	2,930,634	0.40-128.00	12.92
Granted .....	1,096,550	3.49-8.35	3.894
Exercised .....	(45,700)	0.40-8.00	5.084
Forfeited—Cancelled .....	(679,572)	2.44-105.00	14.10
Outstanding, December 31, 2003 .....	3,301,912	\$0.40-128.00	\$9.792
Exercisable, December 31, 2003 .....	1,658,681		\$12.74
Exercisable, December 31, 2002 .....	1,256,523		\$15.45
Exercisable, December 31, 2001 .....	541,831		\$24.96

# AVICI SYSTEMS INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

December 31, 2003

(all tabular amounts in thousands except share and per share data)

The following table summarizes information relating to currently outstanding and exercisable stock options as of December 31, 2003:

Exercise Price	Options Outstanding			Exercisable	
	Number of Shares Outstanding at December 31, 2003	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
\$ 0.40	4,167	3.8	\$ 0.40	4,167	\$ 0.40
2.00-2.76	13,177	6.1	2.23	8,666	2.06
3.32-4.64	939,517	9.0	3.60	171,160	3.59
5.40-8.00	1,742,215	8.1	7.53	953,409	7.59
8.35-12.00	54,649	7.2	10.48	34,879	11.04
15.20-20.68	386,249	5.6	16.48	356,470	16.34
24.20-35.25	65,798	7.0	30.97	52,644	31.25
41.40-60.00	50,938	6.7	54.56	42,596	54.43
75.50-100.00	43,202	6.3	87.57	33,232	87.38
128.00	2,000	7.1	128.00	1,458	128.00
<u>\$ 0.40-128.00</u>	<u>3,301,912</u>	<u>8.0</u>	<u>\$ 9.79</u>	<u>1,658,681</u>	<u>\$ 12.74</u>

### (g) Restricted Stock Grants

In fiscal 2000, Avici granted an officer the right to purchase 25,000 shares of restricted stock and, in connection with the purchase, loaned the individual \$2,500,000. These shares vested ratably over a 12 month period. The loan is non-interest-bearing with limited recourse to the individual and is secured by the restricted securities. The loan has a maturity of 10 years and is to be repaid from the proceeds of the sale of the related restricted securities, if such sale precedes the maturity date. The full amount of the loan is outstanding at December 31, 2003 and has been recorded as a subscription receivable within stockholders' equity in the accompanying consolidated balance sheet. As a result of the limited recourse on this note, Avici is treating this issuance similar to a stock option.

See also section (e) of this footnote, "Option Exchange Program," relating to restricted stock issued in connection with Avici's option exchange program as of October 31, 2001.

### (h) 2000 Employee Stock Purchase Plan

A total of 187,500 shares of common stock have been reserved for issuance under the 2000 Employee Stock Purchase Plan. The plan contains consecutive, overlapping, 24-month offering periods. Each offering period includes four consecutive six-month purchase periods. Eligible employees may purchase common stock at a price equal to 85% of the lower of the fair market value of the common stock (i) at the beginning of the offering period or (ii) at the end of the purchase period, whichever is lower, with the option price at the beginning of the first offering period equal to 85% of the initial public offering price. Participation is limited to 10% of the employee's eligible compensation, not to exceed \$25,000 per calendar year or amounts allowed by the Internal Revenue Code. On January 1 of each year, commencing with January 1, 2001, the aggregate number of shares of common stock available for purchase under the 2000 Employee Stock Purchase Plan will automatically increase by the number of shares necessary to cause the total number of shares then available for purchase to be 187,500 shares. During the years ended December 31, 2003, 2002 and 2001, Avici sold 50,962, 61,460 and 70,857 shares, respectively, to employees under the 2000 Employee Stock Purchase Plan.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**

**(all tabular amounts in thousands except share and per share data)**

**(i) Accounting for Stock-Based Compensation**

Through December 31, 2001, Avici had recorded cumulative non-cash deferred compensation, primarily relating to pre-IPO grants, as an element of stockholders' equity, representing the aggregate difference between the deemed fair value of Avici's common stock and the exercise price of stock options and restricted stock granted and the selling price of stock sold. The deferred compensation is being recognized as an expense over the vesting period of the stock options and restricted stock. During the years ended December 31, 2003, 2002 and 2001 Avici recorded approximately \$1.0 million, \$4.1 million and \$15.0 million, respectively, of compensation expense. Avici expects to recognize compensation expense of approximately \$0.3 million in 2004 based on stock options and restricted stock granted prior to December 31, 2003.

**(j) Shareholder Rights Agreement**

On December 5, 2001, the Board of Directors enacted a stockholder rights agreement and declared a dividend of one preferred share purchase right for each outstanding share of common stock outstanding at the close of business on December 17, 2001 to the stockholders of record on that date. Each stockholder of record as of December 17, 2001 received a summary of the rights and any new stock certificates issued after the record date contain a legend describing the rights. Each preferred share purchase right entitles the registered holder to purchase from Avici one two-hundred fiftieth of a share of Series A Junior Participating Preferred Stock, par value \$0.01 per share, at a price of \$40.00 per one two-hundred fiftieth of a Preferred Share, subject to adjustment, upon the occurrence of certain triggering events, including the purchase of 15% or more of Avici's outstanding common stock by a third party. Until a triggering event occurs, the common stockholders have no right to purchase shares under the stockholder rights agreement. If the right to purchase the preferred stock is triggered, the common stockholders will have the ability to purchase sufficient stock to significantly dilute the 15% or greater holder.

**(4) INCOME TAXES**

Avici accounts for income taxes in accordance with SFAS No. 109, *Accounting for Income Taxes*. Under SFAS No. 109, deferred tax assets or liabilities are computed based on the difference between the financial statement and income tax basis of assets and liabilities using currently enacted tax rates. Deferred income tax expense or credits are based on changes in the asset or liability from period to period.

As Avici has incurred net operating losses since inception, no provision for federal or state income taxes has been recorded. As of December 31, 2003, Avici had net operating loss carryforwards for federal and state income tax purposes and tax credit carryforwards of approximately \$295.5 million and \$9.2 million, respectively. Approximately \$13.1 million of Avici's net operating loss carryforwards relate to deductions associated with Avici's stock option plans, which will be benefited through stockholders' equity if realized. The federal net operating loss carryforwards expire beginning in 2012 through 2023, and are subject to review and possible adjustment by the Internal Revenue Service (IRS). The utilization of the net operating loss carryforwards may be subject to annual limitations as a result of changes in the ownership of the Company.

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**  
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The approximate income tax effects of each type of temporary differences and carryforwards are as follows:

	<u>December 31,</u>	
	<u>2003</u>	<u>2002</u>
Deferred Tax Assets:		
Net operating loss carryforwards .....	\$ 118,199	\$ 106,002
Research credit carryforwards .....	9,199	8,257
Depreciation .....	6,656	4,688
Inventory .....	2,211	3,113
Accrued compensation .....	481	1,025
Other .....	2,300	1,859
Gross deferred tax assets .....	139,046	124,944
Valuation allowance .....	(137,793)	(123,632)
Total deferred tax asset .....	<u>1,253</u>	<u>1,312</u>
Deferred Tax Liabilities:		
Leases .....	(1,253)	(1,312)
Total deferred tax liabilities .....	<u>(1,253)</u>	<u>(1,312)</u>
Net deferred tax asset .....	<u>\$ —</u>	<u>\$ —</u>

Due to the uncertainty surrounding the realization of the deferred tax assets, Avici has provided a full valuation allowance against these amounts at December 31, 2003 and 2002.

**(5) EMPLOYEE BENEFIT PLAN**

Avici has a 401(k) Plan that provides for eligible employees to make contributions on a tax-deferred basis. All employees on the first day of the month following their date of employment are eligible to participate in the 401(k) Plan. Contributions are limited to 15% of their annual compensation, as defined, subject to certain IRS limitations. Avici may contribute to the Plan at its discretion. No employer contributions were made for all periods presented.

**(6) COMMITMENTS AND CONTINGENCIES**

**(a) Leases**

Future minimum payments due under lease agreements at December 31, 2003 are as follows:

	<u>Capital Leases</u>	<u>Operating Leases</u>
2004 .....	46	1,407
2005 .....	—	1,061
2006 .....	—	1,115
2007 .....	—	743
Total payments .....	46	\$4,326
Less—Amounts representing interest .....	0	
Present value of future minimum lease payments .....	46	
Less—Current portion .....	46	
Long-term portion .....	<u>\$ 0</u>	

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**  
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Rent expense from operating leases included in the accompanying consolidated statements of operations was approximately \$1.3 million, \$1.8 million and \$2.3 million for the years ended December 31, 2003, 2002 and 2001 respectively. In connection with its facilities leases, Avici provided letters of credit to the lessor. The letters of credit are fully collateralized by cash of \$0.4 million and \$0.5 million as of December 31, 2003 and 2002 respectively, and are recorded as restricted in the accompanying consolidated balance sheets.

**(b) Commitments**

Avici outsources the manufacture and assembly of its products. During the normal course of business, in order to maintain competitive lead times for customers and adequate components supply, Avici enters into agreements with certain suppliers to procure inventory based upon criteria as defined by Avici. As of December 31, 2003, Avici is committed to purchase approximately \$2.2 million of inventory over the next 12 months.

**(c) Guarantees and Product Warranties**

In November 2002, the Financial Accounting Standards Board issued Interpretation No. 45 (FIN 45), "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others," which requires certain guarantees to be recorded at fair value as opposed to the current practice of recording a liability only when a loss is probable and reasonably estimable and also requires a guarantor to make significant new guaranty disclosures, even when the likelihood of making any payments under the guarantee is remote. Avici adopted FIN 45 in the first quarter of 2003 and it did not have a material impact on Avici's consolidated financial position or results of operations. The following is a summary of agreements that Avici has determined to be within the scope of FIN 45.

In the normal course of business, Avici may agree to indemnify other parties, including customers, lessors and parties to other transactions with Avici, with respect to certain matters. Avici has agreed to hold these other parties harmless against losses arising from a breach of representations or covenants, or other claims made against certain parties. Historically, payments made by Avici, if any, under these agreements have not had a material impact on Avici's operating results or financial position.

Avici establishes warranty reserves for costs expected to be incurred after the sale and delivery of product for deficiencies as required under specific product warranty provisions. The warranty reserves are determined based on the actual trend of historical charges incurred over the prior twelve-month period excluding any significant or infrequent issues, which are specifically identified and reserved for. The warranty liability is established when it is probable that customers will make claims and when a reasonable estimate of costs can be made. Warranty reserves are included in accrued other in the accompanying consolidated balance sheets.

	<u>2003</u>
Product warranty liability, beginning of year .....	\$ 985
Warranties issued during the period .....	1,092
Settlements made during the period .....	<u>(961)</u>
Product warranty liability, end of year .....	<u>\$1,116</u>

**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

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**(all tabular amounts in thousands except share and per share data)**

**(d) Litigation**

In addition to claims in the normal course of business, twelve purported securities class action lawsuits were filed against Avici and one or more of Avici's underwriters in Avici's initial public offering, and certain officers and directors of Avici. The lawsuits alleged violations of the federal securities laws and were docketed in the U.S. District Court for the Southern District of New York (the "Court") as: Felzen, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3363; Lefkowitz, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3541; Lewis, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3698; Mandel, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3713; Minai, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3870; Steinberg, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-3983; Pelissier, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-4204; Esther, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-4352; Zhous, et al. v. Avici Systems Inc. et al., C.A. No. 01-CV-4494; Mammen, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-5722; Lin, et al. v. Avici Systems Inc., et al., C.A. No. 01-CV-5674; and Shives, et al. v. Banc of America Securities, et al., C.A. No. 01-CV-4956. On April 19, 2002, a consolidated amended class action complaint (the "Complaint"), which superseded these twelve purported securities class action lawsuits, was filed in the Court. The Complaint is captioned "In re Avici Systems, Inc. Initial Public Offering Securities Litigation" (21 MC 92, 01 Civ. 3363 (SAS)) and names as defendants Avici, certain of the underwriters of Avici's initial public offering, and certain of Avici's officers and directors. The Complaint, which seeks unspecified damages, alleges violations of the federal securities laws, including among other things, that the underwriters of Avici's initial public offering ("IPO") improperly required their customers to pay the underwriters excessive commissions and to agree to buy additional shares of Avici's stock in the aftermarket as conditions of receiving shares in Avici's IPO. The Complaint further claims that these supposed practices of the underwriters should have been disclosed in Avici's IPO prospectus and registration statement. In addition to the Complaint against Avici, various other plaintiffs have filed other substantially similar class action cases against approximately 300 other publicly traded companies and their IPO underwriters in New York City, which along with the case against Avici have all been transferred to a single federal district judge for purposes of case management. Avici and its officers and directors believe that the claims against Avici lack merit, and have defended the litigation vigorously. In that regard, on July 15, 2002, Avici, together with the other issuers named as defendants in these coordinated proceedings, filed a collective motion to dismiss the consolidated amended complaints against them on various legal grounds common to all or most of the issuer defendants.

On October 9, 2002, the Court dismissed without prejudice all claims against the individual current and former officers and directors who were named as defendants in our litigation, and they are no longer parties to the lawsuit. On February 19, 2003, the Court issued its ruling on the motions to dismiss filed by the issuer defendants and separate motions to dismiss filed by the underwriter defendants. In that ruling, the Court granted in part and denied in part those motions. As to the claims brought against Avici under the antifraud provisions of the securities laws, the Court dismissed all of these claims with prejudice, and refused to allow the plaintiffs an opportunity to re-plead these claims against Avici. As to the claims brought under the registration provisions of the securities laws, which do not require that intent to defraud be pleaded, the Court denied the motion to dismiss these claims as to Avici and as to substantially all of the other issuer defendants as well. The Court also denied the underwriter defendants' motion to dismiss in all respects.

In June 2003, Avici elected to participate in a proposed settlement agreement with the plaintiffs in this litigation. If ultimately approved by the Court, this proposed settlement would result in a dismissal, with prejudice, of all claims in the litigation against Avici and against any of the other issuer defendants who elect to participate in the proposed settlement, together with the current or former officers and directors of participating

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issuers who were named as individual defendants. The proposed settlement does not provide for the resolution of any claims against the underwriter defendants, and the litigation as against those defendants is continuing. The proposed settlement provides that the class members in the class action cases brought against the participating issuer defendants will be guaranteed a recovery of \$1 billion by insurers of the participating issuer defendants. If recoveries totaling \$1 billion or more are obtained by the class members from the underwriter defendants, however, the monetary obligations to the class members under the proposed settlement will be satisfied. In addition, Avici and any other participating issuer defendants will be required to assign to the class members certain claims that they may have against the underwriters of their IPOs.

The proposed settlement contemplates that any amounts necessary to fund the settlement or settlement-related expenses would come from participating issuers' directors and officers liability insurance policy proceeds as opposed to funds of the participating issuer defendants themselves. A participating issuer defendant could be required to contribute to the costs of the settlement if that issuer's insurance coverage were insufficient to pay that issuer's allocable share of the settlement costs. Avici expects that its insurance proceeds will be sufficient for these purposes and that it will not otherwise be required to contribute to the proposed settlement. Consummation of the proposed settlement is conditioned upon, among other things, negotiating, executing, and filing with the Court final settlement documents, and final approval by the Court. Formal settlement documents for submission to the Court are currently being drafted. If the proposed settlement described above is not consummated, Avici intends to continue to defend the litigation vigorously. Moreover, if the proposed settlement is not consummated, Avici believes that the underwriters may have an obligation to indemnify Avici for the legal fees and other costs of defending this suit and that Avici's directors' and officers' liability insurance policies would also cover the defense and potential exposure in the suit. While Avici can make no promises or guarantees as to the outcome of these proceedings, Avici believes that the final result of these actions will have no material effect on Avici's consolidated financial condition, results of operations or cash flows.

The Securities and Exchange Commission (the "SEC") is conducting several investigations relating to Qwest Communications ("Qwest") and its business relationships. In the SEC investigation entitled "Issuers Related to Qwest," Avici understands that it is one of eleven companies whose business dealings with Qwest are being investigated. Avici has cooperated with these investigations and there has been no wrong doing by Avici alleged in any of these investigations. How long these investigations may continue and their ultimate outcome cannot be determined.

**(7) SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)**

**Consolidated Statement of Operations Data:**

	March 31, 2003	June 30, 2003	September 30, 2003	December 31, 2003
Gross revenue—product .....	\$ 6,663	\$ 8,827	\$ 9,353	\$10,292
Gross revenue—service .....	927	1,020	1,108	1,226
Common stock warrant discount—product .....	(817)	(817)	(817)	—
Net revenue .....	\$ 6,773	\$ 9,030	\$ 9,644	\$11,518
Gross margin—product .....	\$ 2,585	\$ 5,111	\$ 6,058	\$ 7,324
Gross margin—service .....	165	283	289	491
Gross margin—total .....	\$ 2,750	\$ 5,394	\$ 6,347	\$ 7,815
Net loss .....	\$(12,700)	\$(11,313)	\$(9,111)	\$(3,907)
Basic and diluted net loss per share .....	\$ (1.03)	\$ (0.92)	\$ (0.75)	\$ (0.32)



**AVICI SYSTEMS INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**December 31, 2003**

(all tabular amounts in thousands except share and per share data)

Avici has separately disclosed in the statements of operations in this Annual Report the gross revenue and cost of sales for product and service. In 2002 while reviewing historical cost of service revenue, Avici reclassified certain operating expenses to cost of sales. The gross margin amounts presented below reflect the gross margins after the impact of the reclassifications (see Note 1(p)). The net loss and net loss per share amounts for the quarters ended March 31, 2002, June 30, 2002, and September 30, 2002 have also been adjusted to reflect a decrease in stock based compensation expense relating to certain employee terminations. The original amounts reported and adjustments are as follows:

	<u>Net Loss</u>	<u>Net loss per share</u>
<b>Quarter ended March 31, 2002:</b>		
As originally reported .....	\$(18,442)	\$(1.48)
Reduction in stock based compensation expense .....	719	0.06
Revised .....	<u>\$(17,723)</u>	<u>\$(1.42)</u>
<b>Quarter ended June 30, 2002:</b>		
As originally reported .....	\$(15,546)	\$(1.24)
Reduction in stock based compensation expense .....	526	0.03
Revised .....	<u>\$(15,020)</u>	<u>\$(1.21)</u>
<b>Quarter ended September 30, 2002:</b>		
As originally reported .....	\$(18,371)	\$(1.48)
Reduction in stock based compensation expense .....	424	0.04
Revised .....	<u>\$(17,947)</u>	<u>\$(1.44)</u>

	<u>March 31, 2002</u>	<u>June 30, 2002</u>	<u>September 30, 2002</u>	<u>December 31, 2002</u>
Gross revenue—product .....	\$ 8,436	\$ 8,222	\$ 6,387	\$ 6,343
Gross revenue—service .....	791	1,122	878	965
Common stock warrant discount—product .....	(817)	(816)	(817)	(816)
Net revenue .....	<u>\$ 8,410</u>	<u>\$ 8,528</u>	<u>\$ 6,448</u>	<u>\$ 6,492</u>
Gross margin—product .....	\$ 2,160	\$ 4,061	\$ 2,745	\$ 2,023
Gross margin—service .....	348	669	193	274
Gross margin—total .....	<u>\$ 2,508</u>	<u>\$ 4,730</u>	<u>\$ 2,938</u>	<u>\$ 2,297</u>
Net loss .....	<u>\$(17,723)</u>	<u>\$(15,020)</u>	<u>\$(17,947)</u>	<u>\$(14,090)</u>
Basic and diluted net loss per share .....	<u>\$ (1.42)</u>	<u>\$ (1.21)</u>	<u>\$ (1.44)</u>	<u>\$ (1.13)</u>

## **ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

Avici filed a Report on Form 8-K dated July 1, 2002 and a Report on form 8-K/A dated July 3, 2002, reporting a change in Avici's certifying accountant from Arthur Andersen LLP to Ernst & Young LLP which Report on Form 8-K is incorporated herein by reference.

### **ITEM 9A. CONTROLS AND PROCEDURES**

#### **Evaluation of disclosure controls and procedures**

Avici, under the supervision and with the participation of Avici's management, including the principal executive officer and principal financial officer, have evaluated the effectiveness of Avici's disclosure controls and procedures as of the end of the period covered by this quarterly report (the "Evaluation Date") pursuant to Rule 13a-15(b) and 15d-15(b) promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based on this evaluation, Avici's principal executive officer and principal financial officer have concluded, that, as of the Evaluation Date, Avici's disclosure controls and procedures effectively ensure that information required to be disclosed in our filings and submissions under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

#### **Changes in internal control over financial reporting**

There were no changes in Avici's internal control over financial reporting during Avici's last fiscal quarter that have materially affected, or are reasonably likely to materially affect Avici's internal control over financial reporting.

### **PART III**

#### **ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT**

The information required by this Item 10 is incorporated herein by reference to our Definitive Proxy Statement with respect to our 2004 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission not later than 120 days after the end of the fiscal year ended December 31, 2003.

#### **ITEM 11. EXECUTIVE COMPENSATION**

The information required by this Item 11 is incorporated herein by reference to our Definitive Proxy Statement with respect to our 2004 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission not later than 120 days after the end of the fiscal year ended December 31, 2003.

#### **ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The information required by this Item 12 is incorporated herein by reference to our Definitive Proxy Statement with respect to our 2004 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission not later than 120 days after the end of the fiscal year ended December 31, 2003, under the heading of "Ownership of Management and Directors" and "Equity Compensation Plan Information."

#### **ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

The information required by this Item 13 is incorporated herein by reference to our Definitive Proxy Statement with respect to our 2004 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission not later than 120 days after the end of the fiscal year ended December 31, 2003.

#### **ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.**

The information required by this Item 14 is incorporated herein by reference to our Definitive Proxy Statement with respect to our 2004 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission no later than 120 days after the end of the fiscal year ended December 31, 2003.

#### **ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K**

(a) The following documents are filed as a part of this Form 10-K:

1. All Financial Statements. (see "Consolidated Financial Statements and Supplementary Data" at Item 8 and incorporated herein by reference).
2. Financial Statement Schedules. (see "Schedule II – Valuation and Qualifying Accounts," which is included herein by reference)
3. Exhibits

The following exhibits are filed as part of and incorporated by reference into this Form 10-K:

<u>Exhibit Number</u>	<u>Description of Document</u>
3.1	Fourth Amended and Restated Certificate of Incorporation (previously filed as Exhibit 3.2 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
3.2	Certificate of Amendment of Fourth Restated Certificate of Incorporation of the Registrant (previously filed as Exhibit 3.2 to our Form 10-K for the year ended December 31, 2002 filed with the Commission on March 28, 2003 (File No. 000-30865), which is incorporated herein by reference)
3.3	Certificate of Designation of Series A Junior Participating Preferred Stock of the Registrant (previously filed as Exhibit 3.3 to our Form 10-K for the year ended December 31, 2002 filed with the Commission on March 28, 2003 (File No. 000-30865), which is incorporated herein by reference)
3.4	Certificate of Amendment of Certificate of Designation of Series A Junior Participating Preferred Stock of the Registrant (previously filed as Exhibit 3.4 to our Form 10-K for the year ended December 31, 2002 filed with the Commission on March 28, 2003 (File No. 000-30865), which is incorporated herein by reference)
3.5	Amended and Restated By-Laws of the Registrant (previously filed as Exhibit 3.4 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
4.1	Specimen certificate representing the Registrant's Common Stock (previously filed as Exhibit 4.1 to our Form 10-K for the year ended December 31, 2002 filed with the Commission on March 28, 2003 (File No. 000-30865), which is incorporated herein by reference)
4.2	Common Stock Purchase Warrant, dated as of January 7, 2004, issued to Nortel Networks Limited by Avici Systems Inc. (previously filed as Exhibit 4.1 to our Form 8-K filed with the Commission on January 8, 2004 (File No. 000-30865), which is incorporated herein by reference)
10.1*	1997 Stock Incentive Plan (previously filed as Exhibit 10.1 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
10.2*	2000 Stock Option and Incentive Plan (previously filed as Exhibit 10.2 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
10.3*	2000 Employee Stock Purchase Plan, as amended on December 20, 2000 (previously filed as Exhibit 10.3 to our Form 10-K for the year ended December 31, 2001 filed with the Commission on March 22, 2002 (File No. 000-30865), which is incorporated herein by reference)
10.4*	2000 Non-Employee Director Stock Option Plan (previously filed as Exhibit 10.4 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
10.5	Fifth Amended and Restated Investor Rights Agreement, by and among the registrant and the Investors and Founders listed therein, dated as of April 24, 2000, as amended (previously filed as Exhibit 10.5 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
10.6	Omnibus Agreement, dated August 26, 1999, between the Registrant and Nortel Networks Inc. (previously filed as Exhibit 10.6 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
10.7	Lease, dated June 2, 1998, between the Registrant and Y-CEE Investment Trust, as amended (previously filed as Exhibit 10.7 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
10.8	EMC Module Supply Agreement, dated May 1999, between the Registrant and Nortel Networks Inc. (previously filed as Exhibit 10.8 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)

<u>Exhibit Number</u>	<u>Description of Document</u>
10.9†	Procurement Agreement, dated May 17, 2000, between the Registrant and Williams Communications, Inc. (previously filed as Exhibit 10.9 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference),
10.10*	Offer letter, dated January 13, 2000, from the Registrant to Paul F. Brauneis (previously filed as Exhibit 10.11 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
10.11	Lease, dated June 8, 2000, between the Registrant and Yvon Cormier, Trustee of Y-C Investment Trust V (previously filed as Exhibit 10.12 to our Registration Statement on Form S-1 (File No. 333-37316), which is incorporated herein by reference)
10.12*	Offer letter, dated July 27, 2000 between the Registrant and Steven B. Kaufman (previously filed as Exhibit 10.1 to our Form 10-Q for the quarterly period ended September 30, 2000 filed with the Commission on November 13, 2000 (File No. 000-30865), which is incorporated herein by reference)
10.13	Lease, dated August 2, 2000, between the Registrant and Y-CEE Investment Trust (previously filed as Exhibit 10.2 to our Form 10-Q for the quarterly period ended September 30, 2000 filed with the Commission on November 13, 2000 (File No. 000-30865), which is incorporated herein by reference)
10.14*	Offer letter, dated March 28, 2003, between the Registrant and Chris Koeneman (previously filed as Exhibit 10.1 to our Form 10-Q for the quarterly period ended March 31, 2003 filed with the Commission on May 14, 2003 (File No. 000-30865), which is incorporated herein by reference)
10.15+	OEM Purchase and Sales Agreement, dated January 7, 2004, between the Registrant and Nortel Networks Limited
16.1	Letter from Arthur Andersen LLP to the SEC dated July 2, 2002 (previously filed as Exhibit 16.1 to our Form 8-K/A filed with the Commission on July 3, 2002 (File No. 000-30865), which is incorporated herein by reference)
21.1	Subsidiaries of Avici
23.1	Consent of Ernst & Young LLP
24.1	Power of Attorney (included as part of the signature page of this Report)
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

\* Indicates a management contract or any compensatory plan, contract or arrangement

† Confidential treatment granted for certain portions of this Exhibit pursuant to Rule 406 promulgated under the Securities Act, which portions are omitted and filed separately with the Securities and Exchange Commission

+ Confidential treatment requested for certain portions of this Exhibit pursuant to Rule 24b-2 promulgated under the Securities and Exchange Act, which portions are omitted and filed separately with the Securities and Exchange Commission

(b) Reports on Form 8-K.

Avici filed a Report on Form 8-K dated October 22, 2003 to furnish a press release whereby Avici provided its third quarter financial results and announced that it planned to hold a conference call regarding its financial results for the quarter ended September 30, 2003 on October 22, 2003. Avici also furnished a description of its use of Non-GAAP financial information.

Avici filed a Report on Form 8-K dated January 7, 2004 reporting Avici's agreement to enter into an OEM Purchase and Sales Agreement with, and to issue a warrant to purchase 800,000 shares of Avici common stock to, Nortel Networks Ltd.

Avici filed a Report on Form 8-K dated January 29, 2004 to furnish a press release whereby Avici provided its fourth quarter financial results and announced that it planned to hold a conference call regarding its financial results for the quarter ended December 31, 2003 on January 29, 2004. Avici also furnished a description of its use of Non-GAAP financial information.

(c) Avici hereby files as part of this Report our Form 10-K the Exhibits listed in Item 15(a)(3) above.

(d) Financial Statement Schedules. Avici hereby files as part of this Annual Report on Form 10-K Schedule II – Valuation and Qualifying Accounts, which is included herein.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

### AVICI SYSTEMS INC.

By: /s/ PAUL F. BRAUNEIS

**Paul F. Brauneis**  
**Chief Financial Officer, Treasurer and**  
**Senior Vice President of Administration**

Date: March 12, 2004

## POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Avici Systems Inc., hereby severally constitute and appoint Paul F. Brauneis, our true and lawful attorney, with full power to him, to sign for us in our names in the capacities indicated below, any amendments to this Annual Report on Form 10-K (including post-effective amendments), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, and generally to do all things in our names and on our behalf in our capacities as officers and directors to enable Avici Systems Inc., to comply with the provisions of the Securities Act of 1933, as amended, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said Annual Report and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this Annual Report on Form 10-K has been signed by the following persons in the capacities and on the date indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ SURYA R. PANDITI</u> Surya R. Panditi	Chairman and Director	March 12, 2004
<u>/s/ STEVEN B. KAUFMAN</u> Steven B. Kaufman	President, Chief Executive Officer and Director (principal executive officer)	March 12, 2004
<u>/s/ PAUL F. BRAUNEIS</u> Paul F. Brauneis	Chief Financial Officer, Treasurer and Senior Vice President of Administration (principal financial officer and principal accounting officer)	March 12, 2004
<u>/s/ JAMES R. SWARTZ</u> James R. Swartz	Director	March 12, 2004
<u>/s/ ROBERT P. SCHECHTER</u> Robert P. Schechter	Director	March 12, 2004
<u>/s/ WILLIAM INGRAM</u> William Ingram	Director	March 12, 2004
<u>/s/ RICHARD T. LIEBHABER</u> Richard T. Liebhaber	Director	March 12, 2004
<u>/s/ HENRY ZANNINI</u> Henry Zannini	Director	March 12, 2004



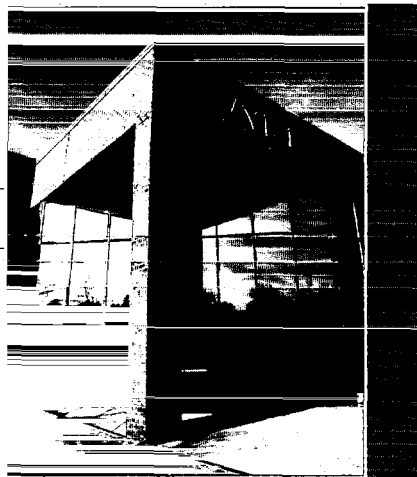
AVICI SYSTEMS INC.

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS

In thousands

<u>Description</u>	<u>Balance at Beginning of Period</u>	<u>Charged to Costs and Expenses</u>	<u>Charged to Other Accounts</u>	<u>Deductions</u>	<u>Balance at End of Period</u>
<b>Accounts Receivable Reserves and Allowances</b>					
Year ended December 31, 2002 .....	\$—	\$220	\$—	\$ 45	\$175
Year ended December 31, 2003 .....	\$175	\$ 70	\$—	\$—	\$245

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#### CORPORATE HEADQUARTERS

Avici Systems Inc.  
100 America Avenue  
Boston, MA 01862  
Tel: 617-2000

#### CORPORATE OFFICERS AND DIRECTORS

##### EXECUTIVE OFFICERS

Steven B. Kaufman  
*President, Chief Executive Officer  
and Director*

Paul F. Brauneis  
*Senior Vice President  
Finance and Administration,  
Chief Financial Officer and  
Treasurer*

Dr. Christopher W. Gunner  
*Senior Vice President  
Research and Development*

Chris Koeneman  
*Senior Vice President  
Sales and Support*

##### BOARD OF DIRECTORS

Surya Panditi  
*Chairman of the Board*

Bill Ingram

Richard T. Liebhaber

Robert P. Schechter

James R. Swartz

Hank Zannini

#### CORPORATE INFORMATION

##### SHAREHOLDER INFORMATION

Transfer Agent  
Mellon Investor Services LLC  
85 Challenger Road  
Ridgefield Park, NJ 07660  
1-800-288-9541  
[www.mellon-investor.com](http://www.mellon-investor.com)

##### STOCK LISTING

The Company's Common Stock is  
traded on the Nasdaq National  
Market under the symbol "AVCI."

##### CORPORATE COUNSEL

Testa, Hurwitz & Thibault, LLP  
125 High Street  
Boston, MA 02110  
617-248-7000

##### INDEPENDENT ACCOUNTANTS

Ernst & Young, LLP  
Boston, MA

##### INVESTOR RELATIONS

For further information on  
the Company, please visit  
[www.avici.com](http://www.avici.com) and see the  
investor relations section.

"Safe Harbor" statement under the Private Securities Litigation Reform Act of 1995; any statements in this Annual Report that are not statements of historical fact are forward-looking statements that are subject to a number of important risks and uncertainties that could cause actual results to differ materially. Specifically, this Annual Report contains forward-looking statements related to: the size, characteristics, regulation, and growth of the markets for the Company's products; objectives and plans for future growth in operations, revenue and profitability; the development, introduction and market acceptance of new products; and the Company's position in its markets. All of these forward-looking statements are subject to a number of risks and uncertainties which are included in the Company's filings with the Securities and Exchange Commission.

Avici and TSR are registered trademarks, and QSR, SSR, and NSR are trademarks of the Company.



**Avici Systems Inc.**  
101 Billerica Avenue  
N. Billerica, MA 01862  
[www.avici.com](http://www.avici.com)